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COMP/39.309 LCD (Liquid Crystal Displays)

Parts of this text have been edited to ensure that confidential information is not disclosed; those parts are enclosed in square brackets and marked with an asterisk: [*]

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EUROPEAN COMMISSION

Brussels, 8.12.2010
C(2010) 8761 final

COMMISSION DECISION

of 8.12.2010

**relating to a proceeding under Article 101 Treaty on the Functioning of the European Union and Article 53 of the Agreement on the European Economic Area
(COMP/39.309 – LCD - Liquid Crystal Displays)**

(Only the English text is authentic)

(Text with EEA relevance)

To be notified to

**Samsung Electronics Co Ltd
Samsung Electronics Taiwan Co Ltd
LG Display Co., Ltd.
LG Display Taiwan Co., Ltd.
AU Optronics Corporation
Chimei InnoLux Corporation**

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THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union¹,

Having regard to the Agreement on the European Economic Area,

Having regard to Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty², and in particular Article 7 and Article 23(2) thereof,

Having regard to the Commission decision of 27 May 2009 to initiate proceedings in this case,

Having given the undertakings concerned the opportunity to make known their views on the objections raised by the Commission pursuant to Article 27(1) of Regulation (EC) No 1/2003 and Article 12 of Commission Regulation (EC) No 773/2004 of 7 April 2004 relating to the conduct of proceedings by the Commission pursuant to Articles 81 and 82 of the EC Treaty³,

After consulting the Advisory Committee on Restrictive Practices and Dominant Positions,⁴

Having regard to the final report of the Hearing Officer in this case,⁵

Whereas:

¹ With effect from 1 December 2009, Article 81 of the EC Treaty has become Article 101 of the Treaty on the Functioning of the European Union. The two provisions are, in substance, identical. For the purposes of this Decision, references to Article 101 of the TFEU should be understood as references to Article 81 of the EC Treaty where appropriate.

² OJ L 1, 4.1.2003, p.1.

³ OJ L 123, 27.4.2004, p. 18.

⁴ OJ

⁵ OJ

1. INTRODUCTION

1. This Decision relates to a cartel in the world-wide market for thin film transistor-liquid crystal display panels for information technology and television applications.

2. THE INDUSTRY SUBJECT TO THE PROCEEDINGS

2.1. The product

2. The liquid crystal display panel is the main component of thin, flat monitors used for televisions, computers, digital watches or pocket calculators. The thin film transistor liquid crystal display is a variant of liquid crystal display that uses thin film transistor technology to improve image quality of flat monitors. Thin film transistor-liquid crystal displays will be hereinafter referred to as "LCD".
3. LCD panels consist of a lower glass plate (a thin-film transistor or "TFT"), an upper glass plate (colour filter formation) and an injected liquid crystal between the two glass plates, which is placed in front of a light source to serve as a screen on an electronic device.⁶ According to Samsung Electronics Corporation, Ltd, market entry requires high investments and know-how given that this market represents some integration of five different technologies which include semi-conductor processes, schematics, liquid, optics and tooling.⁷
4. LCD has various applications. Its main applications include mobile displays, information technology, such as notebooks and PC monitors (hereinafter referred to as "IT"), and televisions (hereinafter referred to as "TV"). This Decision concerns two categories of LCD applications: (a) IT and (b) TV. Within those applications, only panels of 12" and above are concerned.

2.2. The market players

2.2.1. *Samsung Electronics Co Ltd and Samsung Electronics Taiwan Co Ltd,*

5. Samsung Electronics Co Ltd (hereinafter referred to as "SEC"), with registered office at Samsung Electronics Building, 1320-10, Seocho 2-dong, Seocho-gu, Seoul, Korea, 137-857, is the ultimate parent company of a group of companies established and operating world-wide, which manufactured and sold, *inter alia*, LCD panels.
6. SEC engages in the manufacture and sale of LCD products also through, *inter alia*, its fully owned sales subsidiary Samsung Electronics Taiwan Co Ltd (hereinafter referred to as "Samsung Taiwan").⁸
7. Since at least October 2001, and still to date, SEC owned 100% of the shares of Samsung Taiwan.

⁶ [*]

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8. In the financial year ending on 31 December 2009, SEC had a consolidated world-wide turnover of EUR 76 874 million (KRW 136.29 trillion).⁹
 9. For the purposes of this Decision, the relevant EEA turnover of the addressees is defined as those sales where the first sale of the LCD panel to a third party (the first "real" sale) - as such or integrated in a final IT or TV product - was made into the EEA by that undertaking. That is (i) where the LCD panel for IT or TV applications was directly sold to an other undertaking in the EEA (hereinafter referred to as "**Direct EEA Sales**") and/or (ii) where the LCD panel was first transformed within the same group into a final IT or TV product, and then sold to another undertaking in the EEA (hereinafter referred to as "**Direct EEA Sales Through Transformed Products**").¹⁰
 10. The Direct EEA Sales of the Samsung group of companies (as delivered to customers into the EEA), between October 2001 and February 2006, amount to EUR [*]. The relevant Direct EEA Sales Through Transformed Products (as delivered to customers into the EEA), in the same period, amount to EUR [*]. The relevant EEA turnover of the Samsung group companies for LCD Panels for IT and TV applications delivered into the EEA between October 2001 and February 2006 was therefore EUR [below 3 billions].
 11. In this Decision, and unless otherwise specified, companies of the Samsung group which participated in the cartel will be referred to as "**Samsung**".
 12. The individuals representing Samsung and who are relevant for the purpose of this Decision are listed in Annex I.
- 2.2.2. *LG.Philips LCD Co., Ltd. and LG.Philips LCD Taiwan Co., Ltd.*
13. LG.Philips LCD Co., Ltd. (now "LG Display Co., Ltd."¹¹, hereinafter referred to as "LPL" (in the supporting evidence also referred to as "LGD" or "LGP"), with registered office at 18Fl., LG Twin Towers (West Tower), 20, Yeoido-dong, Youngdungpo-gu, Seoul 150-721, Korea¹², is the parent company of a group of companies established and operating world-wide, which manufactured and sold, *inter alia*, LCD panels. It was formed on 26 July 1999 through a joint venture agreement between LG Electronics, Inc. (with registered office at 20, Yeoido-dong, Youngdungpo-gu, Seoul 150-721, Korea hereinafter referred to as "LGE") and Koninklijke Philips Electronics N.V. (with registered office at Groenewoudseweg 1 5621 BA Eindhoven, The Netherlands hereinafter referred to as "Philips"). LGE and Philips owned 50% each of LPL from 26 July 1999 until 23 July 2004. As from that moment their respective shares lowered in subsequent steps to 37.9% (LGE) and to 32.87% (Philips) by the end of the infringement.¹³

⁹ [*] Average exchange rate EUR/KRW for 2009 (ECB): 1772.9 KRW stands for South Korean won.

¹⁰ EEA sales data were requested with due regard to the 2004 enlargement of the Union.

¹¹ LG Display Co., Ltd. is the recently changed name of LG Philips LCD Co., Ltd. This is a change of name only and does not reflect a merger, acquisition or a sale of assets, cfr. [*]

¹² [*]

¹³ [*]

14. LG.Philips LCD Taiwan Co., Ltd. (hereinafter referred to as "LPLT") (now renamed "LG Display Taiwan Co., Ltd."¹⁴, incorporated on 12 April 1999) was at all times prior to 31 December 2006 active in manufacturing and/or supplying in the LCD sector and was and still is a wholly owned subsidiary of LPL.¹⁵
15. In the financial year ending on 31 December 2009, LPL had a consolidated world-wide turnover of EUR 8 000-15 000 million (KRW 18 000 – 25 000 million).¹⁶
16. The relevant EEA turnover (see recital 9) of the LPL group companies (as delivered into the EEA) between October 2001 and February 2006 amounted to EUR [between 2 and 3 billion]. The relevant EEA turnover of LPL derives from Direct EEA Sales (of LCD panels for IT and TV applications into the EEA) and includes sales to its shareholders, LGE, Philips, and their subsidiaries. LPL had no Direct EEA Sales Through Transformed Products.
17. In this Decision, and unless otherwise specified, companies of the LPL group which participated in the cartel will be referred to as "**LPL**".
18. The individuals representing LPL and who are relevant for the purpose of this Decision are listed in Annex I.

2.2.3. *AU Optronics Corporation*

19. AU Optronics Corporation, with registered office at 1 Li-Hsin Rd. 2, Hsinchu Science Park, Hsinchu, Taiwan, is the ultimate parent company of a group of companies established and operating world-wide, which manufactured and sold, *inter alia*, LCD panels. It was formed on 1 September 2001 as a result of the merger between Acer Display Technology, Inc. and UNIPAC Optoelectronics Corporation. On 1 October 2006, AU Optronics Corporation merged with Quanta Display Inc.¹⁷
20. In the financial year ending on 31 December 2009, AU Optronics Corporation had a consolidated world-wide turnover of EUR 7 000-11 000 million.¹⁸
21. The relevant EEA turnover (see recital 9) of the AU Optronics Corporation group companies for LCD Panels for IT and TV applications between October 2001 and February 2006 was EUR [less than 1 billion].¹⁹ AU Optronics Corporation had no Direct EEA Sales Through Transformed Products.
22. In this Decision, and unless otherwise specified, companies of the AUO group which participated in the cartel will be referred to as "**AUO**".
23. The individuals representing AUO and who are relevant for the purpose of this Decision are listed in Annex I.

¹⁴ LG Display Taiwan Co., Ltd. is the new name of LG Philips LCD Taiwan Co., Ltd. [*]

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¹⁶ [*]

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¹⁸ [*]

¹⁹ [*]

2.2.4. Chimei InnoLux Corporation

24. Chi Mei Optoelectronics Corporation ("CMO"), with registered office at No. 3, Sec. 1, Huanshi Rd., Tainan Science-Based Industrial Park, Tainan County 74147, Taiwan, was the parent company of a group of companies established and operating world-wide, which manufactured and sold, *inter alia*, LCD panels.²⁰
25. In the financial year ending on 31 December 2009, CMO had a consolidated world-wide turnover of EUR 6 400 million (295 405 375 000 NTD).²¹
26. The relevant EEA turnover (see recital 9) of the CMO group companies between October 2001 and February 2006 stems from Direct EEA Sales with a value of EUR [less than 1 billion] and Direct EEA Sales Through Transformed Products with a value of EUR [less than 1 billion] for panels delivered into the EEA.²² The relevant EEA turnover of the CMO group companies for LCD Panels for IT and TV applications delivered into the EEA between October 2001 and February 2006 was therefore EUR [less than 2 billions].
27. On 20 November 2009, CMO, InnoLux Display Corporation (hereinafter referred to as "InnoLux") and TPO Displays Corporation (hereinafter referred to as "TPO") entered into a merger agreement. InnoLux merged with both TPO and CMO, and as of the Merger Date (18 March 2010), TPO and CMO ceased to exist. InnoLux is the surviving legal entity, but on the Merger Date, it changed its name from InnoLux Display Corporation to Chimei InnoLux Corporation (hereinafter referred to as "CMI").
28. In this Decision, and unless otherwise specified, companies of the CMO group which participated in the cartel will be referred to as "**CMO**".
29. The individuals representing CMO and who are relevant for the purpose of this Decision are listed in Annex I.

2.2.5. Chunghwa Picture Tubes

30. Chunghwa Picture Tubes Ltd., (hereinafter referred to as "CPT") with registered office at 1127 Heping Road, Bade City, Taoyuan, Taiwan 334, Republic of China, is the ultimate parent company of a group of companies established and operating world-wide, which manufactured and sold, *inter alia*, LCD.²³
31. According to its audited estimation, in the financial year ending on 31 December 2009, CPT had a consolidated world-wide turnover of EUR 1 251 802 047 (NTD 57 704 000 000).²⁴

²⁰ [*]

²¹ [*]. NTD stands for "New Taiwan Dollar".

²² [*]

²³ [*]

²⁴ [*]

32. The relevant EEA turnover (see recital 9) of CPT for panels delivered into the EEA between October 2001 and February 2006 was EUR 49 354 739.²⁵ CPT had no Direct EEA Sales Through Transformed Products.
33. In this Decision, and unless otherwise specified, companies of the CPT group which participated in the cartel will be referred to as "**CPT**".
34. The individuals representing CPT and who are relevant for the purpose of this Decision are listed in Annex I.

2.2.6. *HannStar*

35. HannStar Display Corporation (hereinafter referred to as "HannStar" or "Hannstar"), with registered office at 12th Floor, 480, Rueiguang Road, Neihu District, Taipei, 114 Taiwan, R.O.C., is a company which operated world-wide in the market for LCD panels throughout the period of its participation in the infringement.
36. In the financial year ending on 31 December 2009, HannStar had a consolidated world-wide turnover of EUR 1 103 223 511 (NTD 50 855 013 000).²⁶
37. The relevant EEA turnover (see recital 9) of HannStar companies between October 2001 and 6 January 2006 stems from Direct EEA Sales with a value of EUR 39 349 461 and from Direct EEA Sales Through Transformed Products delivered in the EEA, with a value of EUR 2 634 037. The relevant EEA turnover of the HannStar group companies for LCD Panels for IT and TV applications delivered into the EEA between October 2001 and February 2006 was therefore EUR 41 983 498.
38. The individuals representing HannStar and who are relevant for the purpose of this Decision are listed in Annex I.

2.3. **Description of the sector**

2.3.1. *Supply*

39. The LCD industry is characterized by a very rapid and strong growth.²⁷ According to Samsung, the world-wide market has grown from USD 6 500 million in 1998 to USD 45 000-55 000 million in 2006.²⁸ Samsung also mentions that this growth was not stable over the whole period as there were "ups periods", such as the year 1999, 2002 and 2004 and other periods of "downs" such as the year 2001.²⁹
40. The LCD producers are active world-wide and are predominantly located in Korea, Japan and Taiwan.

²⁵ [*]

²⁶ [*]

²⁷ [*]

²⁸ [*]

²⁹ [*]

41. Suppliers for IT and TV applications can be distinguished between those who primarily sell to the general market and those who manufacture LCDs primarily for internal use.³⁰
42. As already indicated (see recital 4), this Decision concerns two specific categories of LCD applications: (a) IT and (b) TV and within those categories only panels not smaller than 12" are concerned.
43. The addressees of this Decision had a joint share in the world-wide sales of large size LCD panels of [65-80%] during the period of the infringement.³¹ According to the parties' own estimations at the time of the infringement their joint share was [around 70%].³² Table 1 sets out the relevant sales values of the addressees of this Decision concerning LCD panels of IT and TV applications with panels of 12" and above in the EEA based on the information provided by them. As indicated in recital 9, as relevant EEA sales value, the Commission takes those sales where the first "real" sale of the LCD panel was made into the EEA by the addressees of this Decision, that is where it was directly sold as such to third companies or where it was transformed intra-group and the final product was put on the market in the EEA.

Table 1: Sales of LCD panels in the period October 2001-January 2006 in the EEA

	From October 2001 (in euro)	2002 (in euro)	2003 (in euro)	2004 (in euro)	2005 (in euro)	January 2006 (in euro)
Samsung	[Less than 100 million]	[Less than 500 million]	[Less than 500 million]	[Less than 1 billion]	[Less than 2 billion]	[Less than 200 million]
LPL	[Less than 10 million]	[Less than 100 million]	[Less than 500 million]	[Less than 1 billion]	[Less than 2 billion]	[Less than 200 million]
AUO	[Less than 10 million]	[Less than 10 million]	[Less than 50 million]	[Less than 500 million]	[Less than 1 billion]	[Less than 200 million]
CMO	[Less than 50000]	[Less than 100 million]	[Less than 500 million]	[Less than 500 million]	[Less than 1 billion]	[Less than 150 million]
CPT	[Less than 10000]	[Less than 100000]	[Less than 10 million]	[Less than 50 million]	[Less than 100 million]	[Less than 50 million]
HannStar	[Less than 10 million]	[Less than 10 million]	[Less than 1 million]	[Less than 1 million]	[Less than 50 million]	[Less than 10 million]

2.3.2. Demand

44. Direct customers of LCD panels for IT and TV applications are manufacturers of televisions, computer monitors and notebooks. Customers include (i) brand

³⁰ [*]

³¹ [*]

³² In 2001 they considered that Korean and Taiwanese companies represents [70-80%] of the world-wide market (see recital 107). For 2002 they assess their joint share as amounting to [60-70%] on the world-wide market [*] and, within that, [75-95%] in the flat panel monitor segment (see recital 138). They estimate the Korean and Taiwanese capacities as amounting to [70-80%] (see recital 137). In 2003 Samsung estimates the share of Korean companies in TFT LCD as amounting to [45-55%] and expects [45-55%] in 2004 (see recital 157).

customers, who purchase panels, along with other inputs, to incorporate into finished products that are sold under their brand name; (ii) original equipment manufacturers (hereinafter referred to as "OEMs"), contract manufacturers or system integrators, who purchase LCD panels and other components and sell the assembled finished products; and (iii) electronic parts distributors, who resell the panels unchanged. In addition, some LCD panel manufacturers, including Samsung, CMO and Hannstar, have corporate affiliates or divisions that incorporate LCD panels into finished products, and sell finished products into the EEA. Some of these corporate families purchase panels from unaffiliated manufacturers.³³

45. These customers may conclude long term contracts with suppliers for periods covering two or three years. For instance, [*] *"had concluded a long term agreement (LTA) with [*]"* for a period of two to three years.³⁴
46. [*] also explains the "pricing process" with customers as follows: *"first the customer contacts the account manager and requests a particular price. The account manager then provides a counter quote and if the customer isn't satisfied with that counter quote, then the customer sometimes provides competitors' quotes. These quotes may or may not be truthful and accurate."*³⁵ Similarly, [*] describes that *"the buyer approaches several suppliers with its volume requirements, technical specifications, and target price for an anticipated shipment. The buyer's target price is set based primarily on its own assessment of the then-prevailing market conditions (i.e. supply and demand) [...]"*.³⁶
47. According to[*], *"customers are spread out over the world [*]"*. Some customers are located in Europe.³⁷

2.3.3. The geographic scope

48. The LCD suppliers and major customers are global actors. LCD panels are sold world-wide and prices are set on a world-wide basis.³⁸

2.4. Inter-state trade

49. It is clear from the evidence at hand that from October 2001 to January 2006, LCD panels were sold directly by the addressees to customers in the EEA (Direct EEA Sales). Those customers can be producers of notebooks, monitors and TVs such as [*] or [*] that sell the transformed products in other Member States to retail distributors that may further resell the final products incorporating the panels in several Member States.
50. On the other hand, a number of panels were incorporated and transformed in the final IT and TV products for sale in the EEA by the addressees and/or their subsidiaries

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³⁵ [*]

³⁶ [*]

³⁷ [*]

³⁸ [*]

(Direct EEA Sales Through Transformed Products). This is particularly the case for Samsung which owned and supplied factories in the EEA, namely an LCD panel fabrication plant (hereinafter also referred to as "fab") in the United Kingdom that existed until 2004 and one established in Slovakia in 2004, which later distributed the final products mostly within the EEA. The figures relating to Direct EEA Sales and Direct EEA Sales Through Transformed Products are provided in Table 1.

51. In addition, the LCD panels produced by the addressees may also be purchased by customers in the EEA as part of IT and TV final products sold in the EEA by third parties (hereinafter referred to as "**Indirect Sales**"). These indirect sales were of significant magnitude as more than 16 million LCD TVs were sold in Europe during the infringement period. With their joint world-wide market share of around [65-80%] in large LCD panels (see recital 43), the sales of TVs manufactured with the incorporation of LCD panels of the parties could be estimated at more than 12 million units,³⁹ while LCD Monitors incorporating the parties' products and sold in Europe, the Middle East and Africa ("EMEA") amounted to around 200 million pieces.⁴⁰
52. Europe represented a significant share of the world-wide market of final LCD products. Sales of LCD TVs to Europe went from [5-10%] of total world-wide sales in the last quarter of 2001 to [35-45%] by the end of 2005. Sales of LCD Monitors to Europe went from [30-40%] of world-wide sales at the end of 2001 to [20-30%] by the third quarter of 2003. Monitor sales to the EMEA represented [30-40%] of the world-wide market in the third quarter of 2004, increasing to [35-45%] by the end of 2005.⁴¹
53. Together, the Direct EEA Sales, the Direct EEA Sales of Transformed Products and the indirect sales, during the infringement period led to important trade flows between Member States and between the Contracting Parties to the EEA Agreement for LCD panels and final products including LCD panels originally supplied by the parties (see also recital 43).
54. There is accordingly a substantial volume of trade between Member States, as well as between the Contracting Parties to the EEA Agreement as regards the product concerned.

3. PROCEDURE

55. On [*], Samsung submitted an application under the Commission Notice on immunity from fines and reduction of fines in cartel cases (hereinafter referred to as "the Leniency Notice").⁴² [*]. On 23 November 2006, Samsung was granted conditional immunity.

³⁹ [*]

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⁴¹ [*]

⁴² [*]

56. On [*], LPL submitted an immunity and leniency application. On 23 November 2006, LPL's request for immunity was rejected.[*]⁴³
57. On 7 December 2006, requests for information pursuant to Article 18 of Regulation (EC) No 1/2003 were addressed to AUO, CMO and Hannstar. As CMO contested the jurisdiction of the Commission to request documents held in Taiwan, on 16 February 2007, a decision pursuant to Article 18(3) of Regulation (EC) No 1/2003 was addressed to its European subsidiaries, CMO Europe B.V. and Chi Mei Optoelectronics UK Limited, requesting the submission of documents relating to the infringement period, and enumerating 39 specific contacts. The same questionnaire was sent pursuant to Article 18(2) of Regulation (EC) No 1/2003 to CMO. On 19 February 2007, a request for information was also addressed to CPT. On all instances the scope of the questionnaires covered the infringement period in general and contained a list of meetings. In the case of the first request for information sent to CMO on 7 December 2006, the list only mentioned a bilateral meeting with Samsung.
58. Several requests for information⁴⁴ were also sent to HannStar, which did not reply to those requests. It was only in February 2009 that HannStar replied to a request for information that was sent simultaneously to HannStar and one of its European subsidiaries (Hannspree) on 27 January 2009.
59. On[*], AUO filed a leniency application [*].
60. On 27 May 2009, a Statement of Objections (hereinafter referred to as "the SO") was addressed to Samsung Electronics Co Ltd, Samsung Electronics Taiwan Co Ltd, Samsung Semiconductor Europe GmbH, Samsung Semiconductor Europe Limited, LG Electronics, Inc., Koninklijke Philips Electronics N.V., LG Display Co., Ltd., LG Display Taiwan Co., Ltd., LG Display Germany GmbH, AU Optronics Corporation, AU Optronics Europe B.V., Chi Mei Optoelectronics Corporation, Chi Mei Optoelectronics Europe B.V., Chi Mei Optoelectronics UK Limited, Chunghwa Picture Tubes, Ltd. and HannStar Display Corporation. The parties simultaneously received a CD-Rom that contained the accessible parts of the Commission's file.
61. Legal representatives of the addressees made use of their right of access to the parts of the Commission's file that were only available at the Commission's premises.
62. The addressees made known in writing to the Commission their views on the objections raised against them by the prescribed deadlines.
63. LPL contested that the access to file exercise appropriately ensured the exercise of its rights of defence as it was not suitable to provide complete information on the identity of the submitting party and the date of the submission for every document. It also claimed that through the disproportionate acceptance of confidentiality claims, the Commission applied excessive reductions with regard to Samsung documents. It also claimed that documents were missing from the file.

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On 7 December 2006, on 2 March 2007 and on 16 May 2007 and set a new deadline for the first questionnaire on 26 June 2007.

64. All the addressees of this Decision availed themselves of their right to be heard orally. An Oral Hearing was held on 22 and 23 September 2009.
65. At the Oral Hearing LPL announced that it intended to submit a "partial immunity" application, for which it needed further information on the file. With the involvement of the Hearing Officer, LPL obtained the necessary information and submitted its application for leniency under point 23, sub (b), last subparagraph of the Leniency Notice on [*]. The Hearing Officer confirmed in a letter of 11 February 2010 that all the issues raised in connection with access to the file had been dealt with and that LPL's rights of defence had been respected.
66. By letter of 6 April 2010, the parties were invited to comment on the supplementary evidence submitted by [*] in its reply to the SO. They were also invited to comment on the value of sales (outlined in the letter) to be taken into account for the calculation of the basic amount of the fines.
67. Samsung, LPL and HannStar replied to the letter on [*]. CMO replied on [*] and AUO on [*].
68. The following addressees of the Statement of Objections are no addressees of this Decision: LGE and Philips (the two shareholders of LPL, see recital 13), Samsung Semiconductor Europe GmbH; Samsung Semiconductor Europe Limited; Chi Mei Optoelectronics UK Limited, Chi Mei Optoelectronics Europe B.V., AU Optronics Europe B.V. and LG Display, Germany (respectively, Samsung's, CMOs, AUO's and LPL's European subsidiaries, not directly involved in the cartel).

4. DESCRIPTION OF EVENTS

4.1. Evidence

69. The evidence on which this Decision is based comprises, first, numerous documents ([*]) and corporate statements provided by the immunity and leniency applicants and, second, replies to the Commission's requests for information. The documents provided constitute evidence drafted at the time the events were taking place, that is, *in tempore non suspectu*, covering the entire period of the infringement from October 2001 to February 2006 (see Section 7). In this connection, the Commission also obtained evidence which was submitted by a company and originated from another competitor.⁴⁵ [*]

4.2. General remarks on the anti-competitive arrangements

70. The parties to the infringement engaged in bilateral and multilateral meetings and other contacts in relation to LCD panels for IT and TV applications from 5 October 2001 until at least 1 February 2006.

⁴⁵ For instance, [*] provided the Commission with "presentation material" dated 15 November 2001 (that is the date of a Crystal Meeting) which was prepared by [*] and circulated to the other parties. [*] provided the Commission with the same kind of evidence from [*] concerning the meeting of 8 March 2002; [*].

71. The infringement involved interaction between the major Korean suppliers Samsung and LPL, and their Taiwanese counterparts AUO, CPT, CMO and HannStar.
72. Anti-competitive practices included price fixing in the form of agreements on future prices, price ranges and minimum prices, on pricing and commercial matters for specific accounts, on future production planning and future capacity utilisation, exchange of information on pricing and other commercial aspects including sales volumes or capacity plans, as well as exchange of price information and price coordination for customers focused on GAMs (global accounts). Application of those practices took place at world-wide and at EEA level, directly or indirectly, and was not restricted to specific geographic areas or shipment destinations.
73. Interaction amongst suppliers covered IT (notebooks and PC monitors) and TV applications of LCD. It involved high, middle and lower levels of personnel. Their interaction was regular: between October 2001 and February 2006, meetings took place once or twice a month.⁴⁶ Meetings took place not only in order to enter into anti-competitive practices in the future but also, as is shown by their regularity and the reporting of data of the previous month, in order to ensure compliance with the arrangements previously entered into.
74. [*] submits that the so called "Crystal Meetings" were multilateral meetings among Samsung, LPL, AUO, CMO, CPT and Hannstar, held in Taiwan. Those meetings were [*] (i) high level multilateral Crystal meetings between high level management (occasionally referred to as Green Meetings) and (ii) working level commercial Crystal Meetings.⁴⁷
75. [*]
76. [*,] the Taiwanese LCD panel producers agreed to the basic rules of the cartel and institutionalized the Crystal Meetings. According to the [*] minutes of the meeting,⁴⁸ it was established that:
- "Principal (sic) for pricing: the list prices are net prices. Each maker can adjust according to situation, but the prices cannot be lower than the net price. The upper limit for discount on intra-group sales is [*] and can be offered using after-sale rebates, in order to avoid disturbing the order of market prices.*
- Principals (sic) for meetings: Each maker takes turn organising each quarter. The order is H[ann]S[tar], CPT, CMO and AU[O]. Established Commercial Meetings will be done by vice presidents of sales set at each month to discuss how to stabilize prices and exchange necessary supply and demand information*
- Others: Do not talk about this meeting, not even to colleagues – keep low profile."*
77. The parties also discussed output issues *"Establish a loading rate. The Utilization rate doesn't have to be 100%."*

⁴⁶ Most of those meetings are indicated in further details in Section 4.3 of the Decision.

⁴⁷ [*]

⁴⁸ [*]

78. According to the same minutes, [*] proposed to *"establish a rule similar to the 'yellow flag' rule in car racing, all the makers would, through discussions, determine a common method together (such as raising the yellow flag) and obey this rule to maintain order"*.
79. At that meeting the issue of involving the Korean suppliers was also raised
80. At the meeting on 5 October 2001, a further step was taken in the institutionalisation of the meetings. It was agreed to exchange information on a real time basis through the Hot Line, consisting of a list with phone numbers of the participants.⁴⁹
81. The issue of potential cheating and the maintenance of order was an issue seriously considered and raised by the parties. Immediately after the October meeting, when Hannstar and AUO quoted lower price for 14" panels, [*] called for an explanation and internally noted that *"there is concern that such problem could arise again in the future. Each problem should be raised when it occurs so that there is improvement. It would be good to have this type of information earlier in the future."*⁵⁰ In an internal note [*] acknowledges again that *"it is hard to control or learn price because (a) there are big differences in price by customer or by dealing time and (b) they are using irregular methods"*. The note suggests that *"if a minimum price guideline is established, it may be possible to prevent a completely unreasonable price although the guideline is not binding. Therefore, set minimum price guideline. If a more effective and powerful measure is sought, we need to hold a Top Management Meeting"*.⁵¹
82. [*] confirms the Crystal Meetings and explains that the reasoning behind them was that *"there had been an oversupply situation in the LCD industry throughout 2001, due to the large number of new factories that had been built in Taiwan"*.⁵² This situation led to a high degree of instability in the market. [*] also stated that in October 2001, CPT's representatives approached [*], to *"request that LPL attended meetings that had already been organised among the Taiwanese LCD panel manufacturers"*.⁵³ In similar vein, [*] asserts that *"TFT-LCD is a complex business to manage. Constant updates are required in order to monitor how the market develops and what the other suppliers are doing"...*As a result of these market conditions, TFT-LCD suppliers undertook significant efforts to ascertain how the market was developing, what components were available in the market, which volumes, and at what price. This included regular interaction between competitors."⁵⁴ Based on the above, LCD suppliers tried to reduce uncertainty and instability in the market as much as possible.

49 [*]
 50 [*]
 51 [*]
 52 [*]
 53 [*]
 54 [*]

83. According to [*] the following six undertakings actively⁵⁵ attended those regular multilateral meetings from October 2001 to February 2006: CPT, CMO, AUO, LPL, Hannstar and Samsung Taiwan. As will be seen in the chronology of contacts in Section 4.3, those contacts are confirmed by contemporaneous evidence in the form of the minutes of the Crystal Meetings submitted by [*] and confirmed by other participants.
84. [*] also submits that *"the Taiwanese suppliers had two types of supplier meetings-working level meetings and top meetings. Lower level employees from the Taiwanese companies and the Korean companies' Taiwanese subsidiaries attended the working level meetings; higher-level employees of the Taiwanese companies and the Korean companies' Taiwanese subsidiaries attended the top meetings....While two kinds of meetings existed, the topics discussed in the meetings were similar"*.⁵⁶ [*] confirms the two types of meetings.⁵⁷
85. As to the regularity and the language of the meetings, [*] states that the *"supplier meetings generally occurred once a month. The Taiwanese companies hosted [them] on a rotating basis and the company hosting the meeting would prepare the format for exchange of sales and marketing information. The supplier meetings took place primarily in English as a common language between Chinese and Korean speakers, although Chinese was used at times."*⁵⁸ This point is confirmed by [*].⁵⁹
86. As regards the subject matter of the Crystal Meetings, [*] explained that *"the two main pieces of information shared [...] were price and shipment volume for the current and coming month."*⁶⁰ The minutes of the meetings presented in Section 4.3 confirm that statement in showing that the participants agreed on their future behaviour for the next month or next term and sometimes even further, in particular as far as pricing, production, or capacity utilisation plans were concerned.
87. [*] provides a detailed description of the subject matter and arrangements of the monthly meetings stating that *"pricing issues were discussed and a consensus on a minimum price was reached. Initially, each supplier projected its prices for the following month. Then there was a comparative analysis of all the suppliers' prices. In particular, the price discussions focused on those suppliers whose future prices were not within the price ranges of other suppliers (i.e. where it emerged that a particular vendor was intending to offer a much lower price than other suppliers). Individual suppliers who were identified as intending to offer too low a price would ultimately agree to increase their price, and bring them more in line with the other suppliers' prices. After checking each other's prices, suppliers would reach a*

⁵⁵ Out of 58 Crystal Meetings which are proved to have been held, actual participants can be identified in 52 cases. At those 52 meetings Hannstar was absent twice, namely on 4 November 2004 and 8 December 2004. Samsung was absent twice, namely on 5 October 2001 and 6 April 2005. AUO was absent twice, namely on 5 or 6 May 2005 and 4 November 2005.

⁵⁶ [*]

⁵⁷ [*]

⁵⁸ [*]

⁵⁹ [*] states that *"the majority of the meetings were conducted in the English language even though, for the most part, the participants were not native English speakers, because English was the only language that was common among the multinational attendees."* [*].

⁶⁰ [*]

consensus on a minimum price. The group's scrutiny of future prices allowed suppliers to keep prices within certain price ranges. The suppliers verified price compliance at the following monthly meeting when participants were required to update their current month's prices (i.e. it was possible to check whether an individual supplier had, in fact, raised its current monthly prices to the previously discussed levels). In short, the suppliers ensured that price projections stayed within a reasonable "ball park" figure. There was usually also a Q&A session at the "Crystal Meeting". The suppliers would discuss industry "rumors" that a particular supplier had for example quoted a specific low price to a particular customer: the identified supplier then typically offered some explanation for its low pricing, for example, its clearance of certain product items from its inventory had caused prices to fall. The supplier in question usually also provided some reassurance that the price reduction was temporary, and that it would shortly increase prices, for example, after its inventory had been cleared".⁶¹

88. That the agreements have been implemented can be demonstrated with an example of price arrangements in 2002 concerning [*]
[*]
89. [*]
90. Another example of the implementation of the agreement is [*]
91. Other contemporaneous cartel documents also confirm the parties' implementation of the agreement. [*]
92. There is also evidence that as the parties [*] they were continuously discussing the effects of their agreements both on the immediate downstream level and that of the final customers. In this framework:
 - a) they closely followed and analysed the reactions of the downstream IT and TV market and beyond: [*] *"the distribution channel price for 15" FPM is close to the range[*], determined to be the ceiling price that consumers can tolerate"* [June 2002];⁶²
 - b) they adjusted their strategy accordingly: [*]
93. The cartellists also discussed the effect of their (cartelised) prices on the demand for PC sets, notebooks and TVs: [*].
94. The agreement did not target any specific geographic area [*]. Participants were, however, aware of and sought effects on the European market. First, Europe as a specific market was discussed. [*].
95. The parties were also clearly aware of the illegality of the cooperation from the first meetings, [*].

⁶¹ [*]

⁶² See recital 130.

96. Though there was no formal system for sanctioning deviations, it is clear that the companies were aware from the beginning of the threat of cheating (see the "yellow flag" rule proposed by [*] in recital 78). They monitored each other's pricing and occasionally stated that such behaviour could entail consequences: [*].
97. As to the *modus operandi*, [*] submits that "*no written materials were exchanged at the meetings*". [*] attendees typically went to the meetings with blank price and shipment charts and they filled in the information given by the other competitors. Later, the information would be put into pre-prepared charts called "*Price Trends*" and "*Capacity Utilisation*" which were circulated internally within the company.⁶³ This is confirmed by contemporaneous evidence containing those charts.
98. In the light of the above, the objective of the anti-competitive arrangements was to increase and maintain prices of the LCD panels for IT and TV applications. The control of prices took place at two levels, that is, directly by agreeing and entering into price fixing,⁶⁴ and indirectly by adopting a common understanding of the future strategy on the parameters which determine prices such as production, capacity, shipments and demand. There was regular, monthly, checking of the price, production volume, capacities and other parameters. The establishment of a common basis for future prices allowed the suppliers to verify compliance at the following monthly meeting when participants were required to update their current month's prices.⁶⁵ The parties also made attempts to keep the level of output under control (see recital 102, 103, 116, 120, 139, 141, 148, 156, 174, 179, 192, 197).
99. The crux of the arrangements was that the control of price parameters ensured the future sustainability of the price fixing that was agreed upon in the first place. More specifically, in the course of the Crystal Meetings, the participants established a common understanding of the past and present situation of the market (prices, demand, production and capacity). During the same meetings, the participants adopted a common understanding for the future market situation on the evolution of prices, production and capacity, thereby deciding together on their common future pricing strategy.
100. The adoption of a common understanding on the past and present situation of the sector as well as decisions on the common future strategy took place on a regular, continuous (monthly) basis. In this context, the regularity of the meetings was critical. First, in order to be able to decide on the common future pricing strategy, a common understanding on the past and present market situation must be established to serve as the basis for the future evolution of the mentioned market parameters. Second, through that direct/indirect, regular and continuous pricing mechanism, the participants ensured that prices would not decrease, thus causing an increase in demand and a corresponding increase in production which in turn would have the effect of a subsequent price decrease. Third, that regularity served as a means of monitoring compliance with all the collusive arrangements concluded.

⁶³ [*] The evidence shows that these pre-prepared charts were the same for all participants.

⁶⁴ This was achieved through price increases, price ranges and/or minimum prices.

⁶⁵ See recitals 103, 105, 106, 107, 112, 113, 115, 116, 119, 122, 124, 128, 130, 131, 137, 139, 141, 146, 148, 149, 150, 152, 153, 154, 155, 157, 159, 160, 165, 166, 167, 168, 174, 176, 177, 178, 179, 182, 185, 186, 192, 196, 200, 205, 207, 209, 210, 214, 217, 218, 220, 222, 225, 227.

101. The particular anti-competitive means used to control the prices, as further detailed in Section 4.3, were as follows:

- multilateral contacts: formalized multilateral Crystal Meetings (see recitals 70-86) among six suppliers from October 2001 onwards until February 2006;
- bilateral contacts: according to [*], suppliers tried to verify the information provided by customers, in particular as far as prices were concerned. *"Once targets (prices) were issued, competitor contact would occur to check the different prices".*⁶⁶ [*] also states that *"a number of [*] individuals...engaged in bilateral discussions with competing suppliers [...] at various points in time"*⁶⁷. Further, according to [*], *"[its] ground level salespeople contact their counterparts at the competing firm in an effort to confirm the buyer's representation regarding the competing offer."*⁶⁸ This took place because suppliers were aware that information on competitor's offers coming from customers may be *"false"*;

4.3. Chronology of contacts

2001

102. [*] submits⁶⁹ that on 5 October 2001 a Crystal Meeting took place at the Westin Taipei Hotel, Taiwan. Attendees were from CPT ([*]), CMO ([*]), AUO ([*]), HannStar ([*]) and LGP ([*]). According to an internal report of [*]⁷⁰ the agenda consisted of exchanging the results of the introduction of new prices in October and the negotiation of the November price.⁷¹ The six parties, presented their October prices for 14.1" and 15.x" panels and indicated from which day those prices were to be effective. The parties stated that their planned price increase was successful: *"Although every maker has faced customers' resistance against the price-hike, the price-hike has been carried out coherently among makers and market demand exceeds supply, so the price level for October has reached the original target at about [*]."* Under the second point of the agenda it was discussed, that as *"the result of price-hike is quite satisfactory this month [...] every maker is inclined to try price increase in November. After discussion, the common understanding is 15"[*] and 14.1"[*]."* It was agreed that customers should be notified about the increase immediately. Concerning prices after November the following agreement was reached: *"price for December 2001 - March 2002: considering that after December the arrival of low season will cause price drop, it would be difficult to raise the price again once it slides. Therefore, decided to maintain the November price of 15"[*]*

⁶⁶ [*]

⁶⁷ [*]

⁶⁸ [*]

⁶⁹ [*]

⁷⁰ [*]

⁷¹ The introduction of the October prices was agreed at a meeting on 21 September 2001, where all the six parties were present ([*]). Though [*] could not attend the meeting on 5 October 2001 meeting, it did submit its price data showing that it kept the agreed price line.

until the first quarter of next year." In order to secure favourable market conditions for the price increase the parties decided to consider the reduction of capacities: *"To achieve this target, every maker must review how to maintain an optimum loading rate, lowering production capacity."* In the end of the meeting it was agreed that the CEO Meeting of October 19 would have to discuss the optimum loading rate for that period and the November price. The minutes made by [*]⁷² also confirm that the meeting concerned prices and the adjustment of the loading plan *"agreed on the Nov minimum price[...]; consensus on over supply in Dec and 1Q 2002; consensus on loading rate adjustment (about [*]) → will decide at the Top Meeting on Oct 19"*. To ease the expected oversupply [*] was requested to delay its 5th generation line investment. The parties agreed to exchange information on a real time basis through a "Hot Line" and prepared a list with phone numbers of contact persons.

103. [*] has submitted a document showing that on 19 October 2001, a multilateral Crystal "CEO/Top Management" meeting took place in the Howard Plaza Hotel in Taipei between AUO ([*]), Samsung ([*]), CMO ([*]), HannStar ([*]), LGP ([*]) and CPT ([*]). The minutes state that *"all 4 Taiwan companies [were] represented by [*], showing the importance of the cooperation at this moment"*.⁷³ The points raised at the meeting concerned supply and demand forecasts, future pricing and loading adjustment plan. The minutes show agreement on minimum prices: *"Despite the presence of [*], there was frank criticism and confirmation regarding prices [...] Nov Min 14"[*]; 15" (M) [*] agree - Dec Min 14" [*]; 15" (M) [*] agree."* The minutes also show that the parties carefully analysed the output situation if capacity reduction was needed to maintain favourable supply-demand situation: *"Loading adjustment: Taiwanese companies plan shutdown for 8 days during Chinese New Year holidays, asked plans for Korean companies [...] → [*]: no shut down plan – will not affect Taiwanese companies' market. → consensus: if demand/supply is balanced, no reason to reduce production – let's wait and see"* –. The parties also discussed how previous price agreements were put into effect. The parties agreed to have the next Top Meeting on 5 November and the next Crystal Meeting on 30 October.⁷⁴ That meeting is confirmed by [*] which identifies the meeting in [*] calendar.⁷⁵
104. An internal e-mail of [*] of 24 October 2001, likely relating to prices quoted by [*] and [*] for 14" panels shows that the parties also monitored the implementation of the agreement in bilateral contacts. The [*] sends the message to [*] to *"report this price issue and formally complain to [*] and [*]. Please report back on the result."* [*] replies that he has *"already raised about the problem relating to this matter with both companies. Even though both companies admitted to it, they have asked for our understanding as they had already committed to it early October. Therefore, it will be corrected from December."*⁷⁶

⁷² [*]

⁷³ [*]

⁷⁴ [*]

⁷⁵ [*]

⁷⁶ [*]

105. [*] confirms that, as planned on 19 October, a CEO meeting was held on 30 October 2001 in the Sherwood Hotel with the participation of AUO, CMO, CPT, Hannstar, LPL and Samsung.⁷⁷ The parties discussed November and December price and production and capacity status. [*] accused [*] and [*] of deviating from the agreed price but the two companies denied this. [*] stated that *"it will do everything to keep the price over [*], including giving away a part of its market share."* It was established that as the capacity of [*] dominated the market in Taiwan for 14.1", everything it did affected price. It was therefore stressed that *"[*] must please maintain price"*. It was established that on the [*] project in November [*] and [*] had *"all quoted over [*]"*. The parties agreed that December total delivery exceeded November and that capacity and purchase orders are balanced, *"therefore everyone agreed to small increase by [*]"* explained that it expected a loss of [*] millions for the year, but it considered the stabilisation of the prices more important than grabbing shares. The parties agreed to have an operation meeting on 13 November and a CEO meeting on 15 November with an agenda including 2002 supply-demand report, factory shut down schedule and 2002 price discussion.
106. In an internal e-mail of [*] dated 13 November 2001 copied to [*] summarises to [*], the discussions between competitors at the Suppliers Working Level Meeting held on the same day in Holiday Inn Rebar Crowne Plaza.⁷⁸ The agenda of the meeting includes the state of demand and supply until the 3rd quarter of 2002 with the competitors' estimates and their production plans. Another point of the discussion concerned the next year's capacity expansion plan for [*] and [*]. As regards price, the e-mail states *inter alia* that the price increase was implemented: *"- in the case of 15" (M), above [*] is being quoted in general"*. The e-mail also presents the competitors' pricing to a number of clients and for several types of LCDs, including deviations from the agreed price level. It states *inter alia* that [*] complained that it could not have business with [*] at [*] due to the low price ([*]) offered by [*]. It is also stated that [*] failed to increase monitor price to [*] for [*] (the price agreed upon in the October meeting). The e-mail informs about the next agreed Top meeting scheduled to take place on 15 November 2001, the proposed agenda and certain of the prospective attendees.
107. [*] has provided documentation showing that on 15 November 2001, a CEO or top management meeting did take place between competitors in the Crowne Plaza Hotel in Taipei.⁷⁹ Attendees were: AUO ([*]), CPT ([*]), CMO ([*]), HannStar ([*]), LPL (according to [*], most probably [*]) and Samsung (according to [*] was planning to attend). [*] has submitted a meeting report prepared by the [*]. The report was sent on 16 November 2001 to [*] and the other cartel participants as an attachment to an e-mail from [*] of [*]. In the e-mail [*] indicated that the meeting report had been revised in the light of the clarifications given by [*] the same morning. The report begins with the agenda of the meeting with items on November price review, demand and supply situation in 2002, optimal loading rate, December and 2002 price ideas, the issue of cooperation with the Japanese competitors and a schedule for the next meetings. The report contains a table indicating the agreed minimum November

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⁷⁹ [*]

price, rumours on deviating prices and the explanation given by the allegedly deviating party. The power point presentation states: *"In general, we have raised price successfully, but there's still exceptional case!!!"*. The report shows that discussion took place on the expected output for each quarter of 2002 by each company, on the forecasted demand, on the expected oversupply rate and on price projections for monitor and notebook panels for November and December and a tentative price projection for 2002. The table on projected prices ends with the conclusion: *"We have to reach mini [*]" in Dec"*. The e-mail indicates that the parties considered that the market share of Korean panel makers was [*], while the Taiwanese makers had [*] share on the market. The report bears the warning *"Please do not copy and release to anyone!!!"* as well as *"Confidential"*. The e-mail to which the report was attached also calls on recipients *"to keep it confidential and can not be released to ou[t]sides strictly!!!"*. An internal note of [*] also provides an overview on the discussion stating that *"Generally speaking, November market price has successfully risen [*]"*. It also refers to the deviations from the agreed price. The note mentions: *"To avoid vicious price competition, several suggestions as follows:*

- 1) Must follow target price for new orders*
- 2) Use Hot Line to contact other makers in the industry, to prevent being tricked by customers into cutting price.*
- 3) Even though each maker has strategic clients, internal clients and commitments that are exceptional case, try to gradually decrease these exceptional cases.*
- 4) With the same client, makers can each control price with supply.*
- 5) Sufficiently remind Monitor makers not to grab orders with low price and never support such conduct."*

108. The parties agreed that the loading rate needed no adjustment, due to existing shortage on the market. In order to be able to regulate the market it was suggested to keep inventories instead of reducing price.
109. [*] confirms the this meeting of 15 November 2001 by submitting the same e-mail of 15 November 2001 from [*], the agenda of the CEO Crystal Meeting as well as the diary of [*], an [*] participant, which shows that the event took place.⁸⁰ [*] also confirms the meeting.⁸¹
110. [*] submits that on 7 December 2001, a working level or operational meeting took place at the Howard Plaza Hotel in Taipei.⁸² [*] and [*] confirm the meeting⁸³ and the latter states that the attendees were: CPT ([*]), AUO ([*]), Samsung ([*]), CMO ([*]), LPL ([*]) and HannStar ([*]).⁸⁴ An internal note of [*]⁸⁵ presents the agenda and an overview of the meeting. The parties discussed and assessed the inventory level of customers. The parties checked the effects of price rise on demand stating that *"even though the market selling price rose by [*] at the end of November,*

80. [*]
 81. [*]
 82. [*]
 83. [*]
 84. [*]
 85. [*]

channel dealers continue to pull-in" and that "OEM/PC customers can accept paying a premium to secure allocation". The parties reached an agreement on the price difference that should be maintained between certain product categories.

111. In a preparatory note of 7 December 2001 for the Top Meeting of 11 December, [*] of [*] indicates that the attendees at the meeting would include: [*] (AUO), [*] (CPT), [*] (CMO), [*] and a [*] (Hannstar), [*] (Samsung), [*] (Samsung), [*] and [*] (LPL). The note refers to the two Top Meetings already held and reports on the working level meeting held on 7 December indicating that it related to the discussion of market conditions, demand/supply status, sales plan by each maker and price review, and that further discussions would have to be made in the Top Meeting to find resolutions on issues including price. The agenda of the planned Top Meeting would contain the meeting report of the Working Level Meeting, the Price Guideline Approval, the 2002 Market forecast and discussion on *"security (confidentiality) matters relating to Anti-trust Law violations (already discussed in the Working Level Meeting held on December 7, 2001)".*⁸⁶
112. [*] submitted a detailed note on the meeting of 11 December 2001. The participants, AUO, CMO, CPT, Hannstar, LPL and Samsung discussed among other issues channel inventory, December and agreed January pricing (*"we decide to raise [*] price in January"*), the price difference to be maintained between different products and expected demand for 2002. The parties reviewed the price increases achieved as from October (*"Oct=[*] up; Nov=[*] up; Dec=[*] up"*) and the targeted price increase (*"we have to reach mini \$[*]" in Jan."*), A tentative price projection for the whole year 2002 was also discussed. It was also stated that *"meeting attendees agree to cancel any rebate from January next year"* and it was agreed that *"interests must be calculated into mini price"*. Finally it was decided that *"the CEO meeting will no longer be held on a monthly basis. It will only be scheduled if any specific issues occur. As a basic principle, it will be held every quarter (Green Meeting is fine)".*⁸⁷ The same meeting of 11 December 2001 is confirmed by [*].⁸⁸ Regarding that meeting, on 14 December 2001, in an e-mail sent to [*] ([*]), [*] of [*] reports on the results of the meeting of 11 December. According to [*], there were some additional attendees to the persons mentioned in recital 111.⁸⁹ The note contains prices for December and January for the 12", 13", 14", 15", 15"+, 15"X, 17"SX, 18"SX LCD panel sizes of [*].⁹⁰ [*] also confirms that the meeting took place.⁹¹

2002

113. In its reply to the SO [*] submits [*] internal e-mail of 14 January 2002 to [*] (copied to [*]) referring to a meeting held in the Howard Plaza Hotel in Taipei on 11 January 2002. Participants were AUO ([*]), Hannstar ([*]), CPT ([*]), CMO ([*]), Samsung ([*]) and LPL ([*]). The minutes prepared by [*] show the price planned to

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⁸⁷ [*]

⁸⁸ [*]

⁸⁹ According to [*] note the attendees were [*] – A; [*] – CPT; [*] – CMO; [*] – H(annstar); [*] – L(G Philips); [*].

⁹⁰ [*]

⁹¹ [*]

be charged in February for different monitor and notebook panels by the participants. A subsequent table presents sales plans for February and March. In the last column titled "Remarks" it is indicated that [*] plans 4-5 days off according to demand and supply situation, while [*] and [*] states that they would be off, respectively 1-1.5 and 1-2 days. The note states "[*] aggressively pushes price raise".⁹²

114. [*] submits a document⁹³ showing that on 6 February 2002, a Crystal Operation Meeting took place in the Howard Plaza Hotel, Taipei. Attendees of the meeting were: AUO⁹⁴, HannStar, CPT, CMO, Samsung and LPL. The agenda of the meeting stated "*Please do not copy and release to anyone!!!*" and included the following items: "*1. Marketing Review 2. Fe(bruary) Price Review 3. M(arch) Price 4. Next Meeting: Operation: March 8 a.m. /CPT CEO:Mar.(ch) 12 or 13*". The note contains tables presenting the prices of competitors for a number of sizes of LCDs in February. The table shows that the prices agreed at the previous meeting were mostly followed. It also sets out the corresponding prices for March 2002 and indicates that "[*] and [*] have already raised Apr. price further" and claims that "[*] also accepted this new price proposal". Prices for April were also discussed and were determined to be USD [*] higher than the March prices. Finally, the discussion reviewed the output level and provided a supply calculation for 2002. World-wide volume percentages were established on a company and country of origin basis. [*] also confirms that the meeting took place.⁹⁵
115. [*] submits another internal e-mail from [*] to [*] (copied to [*] of [*]) of 7 February 2002.⁹⁶ The e-mail is entitled "*March Price*". The prices refer to December 2001, January, February and March 2002. The e-mail shows that the prices presented on a monthly basis were the subject of discussions among competitors at meetings held on 11 December 2001, 11 January and 6 February 2002. This note states that [*] requested competitors to increase price and itself reported on a price increase of "[*] for [*] in March [*]" and that "[*] did not object". [*] also told that the "[p]rice for [*] was [*] in February but plans to increase price to [*] and requested [*] cooperation." [*] and [*] "*suggested a gradual increase in MNT price and a big increase in NB price*" with which "[*] agreed; [*] provided no opinion" while "[*] argued for a big increase in MNT price". The suggestion of [*] for a sharp increase was not well received "*because (a) a big price increase will adversely affect demand, (b) demand decrease will cause price decrease proportionally and (c) maintaining 'up trend' is important (there was the fear that customers would begin to demand price decreases once the price is stayed)*". The note also presents the production capacity of [*]. The note ends with the indication that a Top Meeting would be held on 12 or 13 March preceded by a Crystal Meeting on 6 March.
116. According to a number of submissions, an operational meeting took place on 8 March 2002 at the Sherwood Hotel Business Center, Taipei.⁹⁷ Attendees of the meeting were: AUO ([*]), Hannstar ([*]), CPT ([*]), CMO ([*]), Samsung ([*]) and

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[*] also provided the expense reports filed by [*] related to this meeting of 6 February 2002, [*]

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According to [*] handwritten notes in his notebook of 2002. [*]

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LPL ([*]).[*] has submitted a note on the meeting, according to which the agenda included items on a general market review, discussion of the March and April price, the agenda of the CEO meeting and the scheduling of the next meetings.. The document requires secrecy, indicating: *"Please do not copy and release to anyone!!!"*. In addition, the document contains a number of tables, one of which presents the prices of [*] and [*] for different LCD panels for the period between November 2001 and April 2002. Another table shows the incremental price increase of all the competitors on a panel size basis for the period between November 2001 and April 2002 with a total price increase of USD [*] over that period. There is also reference to the output of the six companies for the period between January and April 2002 comparing the quantities of each undertaking against the original forecast. The document ends with the note that *"All the TFT makers increase output, and estimated quantity will be around [*] in Q1"*.⁹⁸ According to notes taken by [*] the parties agreed at the meeting that *"April price principle: monitor use rise [*]; NBPC use rise [*]"*.⁹⁹

117. The tables as described in recital 116 are contained in an e-mail from [*] to [*] (concerning the meeting of 8 March 2002). The e-mail indicates: *"Re whether the growing [other company] is to be accepted as a new member, decided not to accept [other company] at this moment because if [other company] is told about the fact that vendors are currently having meeting, such fact may be known to other customers"*.¹⁰⁰ [*] also states that *"[*] carefully predicts that shortage problems (especially re NB) may be resolved after March"* and that the *"[*] suggested a big increase in 15"MNT price"*. The e-mail shows that the prices presented on a monthly basis were the subject of meetings between competitors that took place on 11 December 2001 (see recitals 110-112), 11 January, 6 February and 8 March 2002.¹⁰¹
118. In an e-mail dated 13 March 2002,¹⁰² [*] of [*] apprises [*] (copied to [*]) on the developments of a Top management or CEO meeting that occurred the same date in the Howard Plaza Hotel, Taipei. Attendees were: AUO ([*]), Hannstar ([*]), CPT ([*]), CMO ([*]), Samsung ([*]) and LPL ([*]),[*].¹⁰³ According to the email from [*], the focus of the discussions was on prices and the relation between prices and demand for 2003, inventories, specific April 2002 prices for a number of product types (12", 13", 14", 15", 15"+) concerning notebooks and monitor screens for [*],[*] and [*], checking the market's reaction to a specific price increase,¹⁰⁴ supply increase for 2003 as well as price projection for the entire 2002 in monitors and notebooks and capacity expansion plans for Generation 4, 5 lines of LCD for the years 2002, 2003 and 2004. One other point of the discussions was the ratio between LCD Monitor price and CRT (cathode ray tube) monitor price. According to the note *"the*

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104 The note quotes as follows: *"Market seems to accept [*] as set price → need aggressive price positioning [*] in April. ([*])"*.[*]

magic number for ration of 15" LCD MNT Price (set price) to 17" Flat CRT MNT price is [] – magic".¹⁰⁵*

119. The same meeting is confirmed by [*]. In addition, according to [*], on the same day of the meeting, [*] representative, received a report on the meeting from [*].¹⁰⁶ The same presentation was sent to [*]. The report included several tables showing prices, shipment volumes and output of TFT panels, namely notebook PC and monitors. [*] submission, in addition to confirming [*] documentary submission, also states that "[*] and [*] have already raised Apr. price further, that are NBPC: 14.1"X+~[*]; 15"X=~[*]; 15"S+=~[*]. [*] also accepted this proposal." [*] submission also contains tables on price increases covering the period between November 2001 and April 2002 for all the competitors, the 2002 Output Review as well as the TFT Supply calculation in 2002 and the market shares for Korean, Taiwanese and Japanese TFT makers. [*] document contains the mention "Please do not copy and release to anyone!!!"
120. [*] also reported internally¹⁰⁷ on that meeting of 13 March 2002 and stated that the parties agreed that *"With FPM street price currently at the turning point of price increase, it is advised to wait and see how the consumer market reacts to the new price before deciding the TFT LCD price policy, in order to prevent killing normal demands"*. It also notes that *"17" SXGA is resolved to quickly rise to [*] in April; May target [*]"*. The parties also started to consider preparation for the expected oversupply in 2004: *"Combined data from all sources predicts that oversupply in 2004 is inevitable, and with larger amount and for a longer period than during 2000~2001, which in turn would cause deeper price decline. It is suggested that included at the next CEO meeting's agenda be a discussion on whether to set up a preparatory response or pre-control production capacity in order to react to the next oversupply wave"*. The meeting is also confirmed by [*]¹⁰⁸
121. On 10 April 2002, a Crystal Operation Meeting took place in the Westin Hotel, Taipei. The notes of the meeting were submitted by [*].¹⁰⁹ Attendees were: AUO ([*]), Hannstar ([*]), CPT ([*]), CMO ([*]), Samsung ([*]) and LPL ([*]). The agenda of the meeting consisted of a review of the market, the discussion of the April and May prices, and the scheduling of the next operational and Green (top) meeting to be hosted by [*] The note provided by [*] contains tables with the prices to be set in April and May by the six participants. The table sums up the monthly price increases successfully reached since October 2001 and totalling USD [*]. A part of the note presenting the atmosphere of the meeting reads as follows: *"- [*] argued for a big price increase but many companies (including [*] suggested a slight increase. (Seasonal Factor) – [*] said that its management has not decided its MNT Panel price policy yet."* The parties observe that *"15" MNT Street Price has been maintained [...] but no longer Cash/Cupon Rebate for customers is available (in the past, [*])"*. Discussing market situation it was noted that strong demand and panel

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¹⁰⁸ [*] handwritten notes.

¹⁰⁹ E-mail of [*] of 16 April 2002 to [*], copied to [*] presenting the minutes of the meeting and the agenda of the Crystal Operation Meeting; [*].

shortage was expected in the case of notebook panels. Nevertheless the parties drew attention to increasing inventories stating that *"the Channel Inventory increase is derived from efforts to maintain enough inventories in preparation for price increase and System Assembler's giving up making 15"M".* Successful price increases were acknowledged again: *"Comparing to 17" CDT MTN price ([*], the price has been increased [*] and three times [*], so a demand decrease may occur."* Discussing the continuation of the meetings it was agreed that *"Next operation Meeting sought to be held in Korea – [*] as host) - Top Meeting requested to be held on 5/21 [*] as host)".*

122. [*] also submits the notes of the meeting of 10 April 2002.¹¹⁰ The minutes elaborate on the discussion relating to output and inventories explaining that the parties worried about the increase of distributors' inventory that had raised from two to 4-6 weeks and that OEM makers were replacing shipment by air to sea cargo, thereby increasing the amount of inventory over the whole supply chain. The parties discussed the effects of the price increases on the downstream markets. It was established that despite price increases in six consecutive months, *"15"/17"FPM finished products [had] not yet seen a rise."* [*] is also noted to explain that market circumstances would prevent LCD panel price rise to have effect on final set prices saying that *"The price of P4 is [*] lower than that of P3. P4 will be the leading product, meaning that if the entire NBPC system cost are expected to go down by [*], should be able to offset TFT price increase."* [*] presented its strategy explaining that *"If the price of 15"XGA for monitor use is incapable of moving up, it will transfer its production line to manufacture 15"XGA for NBPC use, which are better priced."* Concerning the May price the parties established that *"after thorough discussions, the pricing principle in May will be: those for monitor use to go up [*]. Those manufactured by each maker for NBPC use will increase between [*]."* The notes contain the historical price increases of 15" panels as presented at recital 116, adding the planned USD [*] increase in May to come to a total increase of USD [*] since the previous October. The notes end with a detailed table presenting the prices of the six participants for five NBPC and three monitor panel sizes between December 2001 and May 2002.
123. The meeting of 10 April 2002 is also confirmed by [*].¹¹¹ [*] also confirms that the meeting was held, that it was a Crystal Operation Meeting and that it took place at Westin Hotel. [*] also provides documentary evidence (handwritten notes) which confirm the prices contained in some of the tables of the note submitted by [*].¹¹²
124. On 15 May 2002, a Crystal Operational Meeting took place in the Howard Plaza Hotel, Taipei. According to the minutes submitted by [*],¹¹³ attendees were: AUO ([*]), Hannstar ([*]), CPT ([*]), CMO ([*]), Samsung ([*]) and LPL ([*]). The discussion concerned the May pricing, the market in general including demand and supply situation and expectations. The internal e-mail of [*] contains tables of competitors' prices on a number of notebook sizes referring to April and May. The e-

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[*]. According to [*], the attendees of the meeting were: AUO ([*]), Samsung ([*]), LGP ([*]), CMO ([*]), CPT ([*]) and Hannstar.

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E-mail of [*] of 17 May 2002 to [*], copied to [*] presenting the minutes of the meeting and the agenda of the Crystal Operation Meeting; [*].

mail also shows detailed discussion on price increase, to which [*] was opposed, as it had already experienced that higher prices reduced demand of final customers: "*<Price> With respect to NB, strong insistence on a [*] increase. Also support for a [*] increase in MNT, but [*] insisted on maintaining the May price (15", 17"). In case of [*], the 15" MNT price was already hurting the demand of E-User.*" The e-mail continued: "*Decided to stay the May price for 18" MNT. [...][*]. Will not increase MNT price in June.*"

125. [*] also confirms the meeting and submits minutes.¹¹⁴ The agenda shows that the topics were discussion of the market situation, the review of prices for June, the joint strategy against [*] new price request and the scheduling of the next meeting. The parties considered that there were no great concerns relating to inventories partly because in the case of monitors sold in bundle with the PC, the decreasing CPU prices partially absorbed the price increases of TFT and thereby the price of integrated systems including FPM was declining. Concerning prices it is stated that "*after discussions, the principle for pricing in June: the price of 15"/17" for monitor use will slightly rise [*] (except for [*] whose headquarters decided no price increase). The price of 18" remains unchanged in order to narrow its price difference with 17". The range for NBPC price increase will be around [*].*" The minutes establish the total historical price increase in USD [*] since October 2001. The makers expressed their "*hopes that [*] could urge its headquarters to consider keeping up with the price increase of monitor.*" Finally it was discussed that "*next week, [*] is expected to ask all TFT makers to maintain their prices unchanged in between June and August with a rebate of [*]. Attending companies will agree to hold their proposed prices unchanged in May and June. [...] No rebates will be made either.*" The minutes end with updated tables on pricing (see recital 122).
126. That meeting is confirmed by [*] which provides [*] agenda.¹¹⁵ The event is also confirmed by [*].¹¹⁶
127. According to a contemporaneous internal e-mail provided by [*], a top management Crystal Meeting was scheduled to take place on 21 May 2002 organised by [*]¹¹⁷
128. According to [*], on 5 June 2002 the six competitors met in the Howard Plaza Hotel in Taipei. [*] submits an e-mail from [*] dated 6 June 2002¹¹⁸ which was sent among others to [*], entitled "*6/5 Industry Operation Summary (Confidential)*" presenting the minutes of the meeting. The minutes announce that the CEO meeting is planned for 26, 27 or 28 June, while the next operation meeting would be on 5 July. In relation to monitor panel pricing the minutes show discussion and agreement on future prices "*Main Jun-Jul price trends as follows: • 15" XGA – Maintain at [*] level (except [*][*] for Jun-Jul and [*] reduction from [*] for Jun-Jul) • 17" SXGA – All claim to maintain [*] level for Jun-Jul. • 18.1" – [*] [*] for Jun-Jul*". Concerning notebook panel prices the same discussion and agreement can be read from the notes:

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[*]. The minutes initial phrase states: "*Confidential – Do NOT Distribute. ***" See the expense report on the meeting in [*]

"Main Jun-Jul price trends as follows: • 14.1" XGA – Maintain Jun pricing for Jul. Jul price range from [*]. • 15" XGA – Target [*] price increase from Jun to Jul (except [*] holding [*] steady). Jul price range [*]. • 15" SXGA+ -- Target [*] price increase from Jun to Jul. July price range is a wide [*]". The minutes also contain several tables one of which shows the six competitors pricing for several monitor sizes covering the period between December 2001 and July 2002. Another table presents the competitors' capacity utilisation and expansion plans until July 2002. A pre-meeting agenda dated 31 May 2002 was also distributed internally by [*] to a number of individuals in [*]. The agenda included *inter alia* the following points: "▪ June Pricing Review ▪ July Pricing Plan ▪ CEO Meeting Arrangements".¹¹⁹

129. A comparison between the price tables provided by [*] for the meeting of 5 June 2002 and the respective [*] tables¹²⁰ from the 15 May meeting (where decisions were taken regarding pricing) shows a correspondence between the two sets of tables. More particularly, on 15 May 2002, the participants at the meeting *"decided to stay the May price for 18" monitor determined in April"*. That price was USD [*] for [*] and USD [*] for [*]. In the minutes of 5 June 2002 (see recital 128), [*] price for 18" monitors and for May 2002 is USD [*] and [*] respective price is USD [*] corresponding exactly to the level decided in April 2002.
130. [*] also reported on the meeting of 5 June 2002 internally. The minutes¹²¹ show that the parties took detailed notes on existing inventories concluding that except [*] inventories are reasonable, but pointing out that PC branded and OEM integrator inventories are high. The next issue was the level of demand where the parties agreed that though demand for standalone products had decreased a lot, for bundled PC it was still strong as the price drop of CPU absorbed the price hike of TFT. It was noted that *"the distribution channel price for 15" FPM is close to the range of [*] to [*], determined to be the ceiling price that consumers can tolerate"*. [*] is reported to have complained about low demand for 15" panels resulting in high inventories and its plans to switch production capacity to 19" panels. [*] is reported to have explained, concerning a lower price request from [*], how it would react in situations where customers request price decrease *"[*] will ask the customers: Is the choice to ensure volume? Or pricing? If the amount is reduced, [*] may not be able to cover for shortages in the future."* According to the minutes, [*] also added that NBPC pricing would be raised in July by USD [*] is reported to say that it would *"follow the method done in October last year and recommend leaking information to the media stating that the supply will not meet the demand for the second half of the year."* [*] reported on its plans to switch monitor production to NBPC panels which have better prices. It presented the cost difference between two panel types and recommended that there should be a price difference higher than that. The participants at the meeting reached the common understanding *"that during June OEM/Branded will have inventory, so each TFT may have inventory. To prevent price drop causing a chain reaction, the current June pricing must be maintained. Must wait for the peak season and then adjust the pricing."* The historical review of price increases (see recital 129) contains [*] USD both for June and July. It is

¹¹⁹ [*]

¹²⁰ [*]

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however remarked that *"for NBPC use, except for 15" XGA price that can be raised a little due to shortage, generally the prices for all the other sizes are evenly maintained."* The minutes end with the updated version of the detailed tables on pricing (see recital 122).

131. On 13 June 2002, a meeting took place among competitors.¹²² [*] submission consists of [*] handwritten notes on sales and prices of the six competitors including July 2002. Some of [*] figures on prices correspond to the figures presented in the table *"TFT-LCD Price Trend for Notebook Application"* in the [*] submission concerning the meeting of 5 June 2002 (see recital 128).
132. On 13 June 2002 [*] visited [*] in Korea to discuss the *"respond to customers' requests for decrease in prices"*. Participants were the [*] of [*] and [*] and [*] from [*]. The parties discussed actual prices, capacity, demand issues, cost levels, new fab output and sales plans. The parties specifically discussed the customer [*]. In its minutes of the meeting, [*] indicated that since it *"kept its promise with the [*], it only increased prices a little bit in June. [...] Must prevent any decrease in prices within the LCD industry. [...] Must concentrate on large sizes. Therefore request that we cooperate to create demand for 20" UXGA.[...] [*] must urge the [*] to not lower their prices."*¹²³
133. [*] submits that for 18 June 2002, a bilateral meeting was scheduled between [*] (AUO) and [*] (of LPL and LPLT) at [*] office in Hsinchu. The topics of the meeting were planned to be *inter alia* the market outlook in the period *"2H [second half] 2002-2003"*, the pricing strategy for the same period [second half of 2002 and 2003] and the Target '02/03.¹²⁴
134. As is shown by an e-mail from [*],¹²⁵ and his expense reports relating to the CEO meeting on 26 June 2002 at the Monarch Plaza Hotel,¹²⁶ a top management meeting took place on that day. The meeting is also confirmed by [*]. According to an e-mail from [*] of 17 May 2002, a *"Top Meeting"* was scheduled to take place *"on one day during 6/24~6/28"* in the organisation of [*].¹²⁷
135. On 27 June 2002, a bilateral contact (most likely a phone call) took place between [*] ([*]) and [*]. More specifically, in an internal [*] e-mail,¹²⁸ [*] explains that the two competitors discussed pricing at a specific customer: *"Today I have received the following information from [*]: [a customer] said that in order for [*] to recover lost notebook panel volume when the demand increases, [*] will need to lower their price[...]* [The customer] *allegedly told [*] that their pricing was under review because their were too high and that [*] prices were also being reviewed [...] I have no information directly from [the customer] that our price is too high compared to our competition"*.

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136. A CEO meeting took place on 4 July 2002 as indicated in an e-mail of 10 July 2002,¹²⁹ in which [*] reports the results of that meeting to [*] (copied to [*]). Attendees of the meeting were: AUO ([*]), CMO ([*]), CPT ([*]), Hannstar ([*], Samsung [*] and LPL ([*]).¹³⁰ Some of the points raised during the meeting were as follows: *"- maintain the current price [...] - Will hold a working level meeting on 7/25 and will decide whether to maintain the current price or whether will decrease the current price and if so, the decrease level depending on then market price"*.
137. [*] confirms the meeting of July 2002. [*] submits [*] 2002 agenda,¹³¹ which mentions *"4 JUL 2002 LCD Meeting CEO"*. It also submits [*] contemporaneous and handwritten notes which include *inter alia* an estimation of the relative capacities of the Korean ([*], [another producer]: [*], Taiwanese ([*] [another producer]: [*] and Japanese producers [*, prices of several competitors as well as [*] price strategy for the current, third and fourth quarter of 2002 and the first quarter of 2003.
138. [*] also confirms that the meeting took place and specifies that its venue was the Evergreen Hotel in Taipei.¹³² It also submits the detailed minutes of that CEO meeting.¹³³ [*] stated according to the note that the participants joint market share in FPM panel use for Q1 was over [*] and that *"the trends for pricing, products, quality, etc. will be decided by these 6 major makers"*. It is stated that demand is weak, and customers actively request a price decrease. However, it seems that there was a general consensus that a price decrease would not stimulate demand but would raise expectations to await for further decreases leading to an unstoppable domino effect. Demand could only have been stimulated with a huge price differential. [*] therefore urged not to *"comply with any form of lower pricing request from OEM customers"*. [*] asked for a stabilisation of the price, and warned against starting a price-slashing war as had happened before. The common understanding on prices was that *"June price should be kept through July, so wait until the meeting on 7/25 and then adjust price based on market condition. If necessary, lower price to appropriate level all at once in order to stimulate demands."*
139. In its reply to the SO, [*] submits an internal e-mail sent by [*] concerning a meeting held on 22 July 2002.¹³⁴ The participants were Samsung, AUO, LPL, Hannstar, CMO and CPT. The parties expressed that they *"will do their best to avoid a price war"*. The parties discussed capacity issues and [*] suggested that *"production should be adjusted since the companies might force themselves into a price war in case large amount of products are accumulated in stock"* but some companies ([*] and [*]) opposed arguing *"that monitoring every company's production status is not possible"*. They decided to *"determine whether or not to adjust production through a meeting among company CEOs sometime in late July"*. The discussion also encompassed pricing information. [*] repeatedly argued that they were still trying to quote their product (15" monitor) price at USD [*] and were criticizing [*] for quoting a lower price. Other criticisms related to [*] 17" price and the price [*]

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offered for [*].[*] provided an explanation for the low price, namely that low-spec products were also included in the offer. [*] stated that it wanted *"no depreciation to occur right before the 4th quarter, a high demand season"*, but would take *"appropriate measures in case other companies reduce their product price by using irregular method"*. The parties discussed inventory and output issues as well.

140. On 30 July 2002, a meeting between AUO and its competitors was scheduled for 2 p.m. at the Crowne Plaza Hotel in Taipei. On 25 July 2002, [*] sent an e-mail¹³⁵ to [*] reminding them of the upcoming CEO meeting. The topics included: *"*Market & Pricing Trend * Updated Supply/Demand * August – Possible Production Reduction and /or Price Stabilisation"*.¹³⁶
141. On 13 September 2002, a Crystal Operation Meeting took place in the Evergreen Hotel, Taipei. According to the minutes submitted by [*],¹³⁷ attendees were: AUO ([*]), CPT ([*]), CMO ([*]), LPL ([*]), Samsung ([*]) and Hannstar ([*]). According to the notes taken by [*] the parties discussed the level of inventory at the end of May for NBPC, Monitor and "TV and other" (for the latter only [*] had sales data). The table summarising the data also contains the parties' production capacity and the rate of their sales volume and capacity. According to the notes [*] stated that it *"can no longer comply with price rule, besides a few makers' inability to follow agreement, production capacity oversupply is the main reason. [*] suggested price no longer work. It is suggested to immediately hold CEO Meeting to discuss possibilities of production reduction or other measures to stabilize the situation"*. [*] agreed with [*] *"about holding CEO [Meeting] to help make an overall production and sales policy."* It emphasised that *"if upstream source cannot reduce production capacity, and downstream inventory increases, it would be impossible not to cut price."* Concerning the fact that [*] had no comments, [*] internally noted that it might be cheating: *"(more order-taking, obviously!!) Quoting low price behind the back?"*. According to the notes [*] estimated *"that the demand will revive at end of September or October. However, current distribution channel inventory are overstocked. If it is not cleared quickly, will encounter traffic jam. New orders or demands would not be release!"*. Finally [*] advised *"that each maker's price maintain status quo, no more price reduction, such as those selling [*] continue to maintain [*], those selling [*] continue to maintain [*]"*. [*] questioned the viability of this suggestion. [*] noted that *"[*] declared that in order to build G5 customers, it definitely will grab orders with low pricing, [...]"*. The final conclusion of the meeting was that no price rule could be determined at the meeting, and a CEO meeting should be hold to decide whether to reduce production or take other measures. The CEO meeting was scheduled for 19 September at the Howard Plaza Hotel in Taipei, to be organised by [*].
142. An e-mail dated 17 September 2002 from [*]¹³⁸ summarises the discussions of the operation meeting of 13 September as follows: *"• Limited market visibility and pricing chaos. • No meeting conclusion for price guideline and/or capacity*

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utilisation hold. • Need upcoming CEO meeting for further decision and progress: How to control market? How to control price? How to control output? Percentage production loading?". The e-mail recalls the upcoming Crystal CEO meeting scheduled for 19 September 2002 and its major topics, namely, "Pricing Control & Capacity Utilisation".

143. On 18 October 2002, a Crystal Operation Meeting was scheduled to take place at 2 p.m. at the Howard Plaza Hotel in Taipei. [*] was due to host the meeting. An internal e-mail of [*] shows that on 14 October 2002, [*] sent an e-mail to [*] reminding them of that meeting.¹³⁹
144. On 8 November 2002, a Crystal Operation Meeting was scheduled to take place at 9 a.m. at the Crowne Plaza Hotel Taipei. CPT was due to host the meeting. An internal e-mail of [*] shows that on 1 November 2002, [*] sent an e-mail to [*] and others reminding them of the upcoming meeting.¹⁴⁰
145. Based on the travel expenses of its employees, [*] submits that a Crystal Operation Meeting was scheduled to take place on 4 December 2002 at the Howard Plaza Hotel in Taipei.¹⁴¹

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146. [*]¹⁴² submits that on 13 February 2003, an operational meeting took place with the six competitors at the Crown Plaza Hotel, Taipei. The meeting was hosted by [*]. The topics covered market information, pricing trend and capacity utilisation. An internal [*] e-mail sent by [*]¹⁴³ reports capacities and pricing extending to the month of March, for [*]. Concerning prices, the e-mail quotes *inter alia* the following: "[*] increase in MAR and US[*] in APR announced to [*] [...] Request for both [*] & [*] to increase 17" price. [*] [...] Anticipate minor price increase for 15" in MAR [*] MNT-SIP in FEB (Target price increase in MAR)".
147. In an internal e-mail dated 26 March 2003,¹⁴⁴ [*] reports to [*] (copied to [*]), on a competitor meeting that took place on 20 March 2003 at the Howard Plaza Hotel in Taipei. Present were [*] (Hannstar), [*] (AUO), [*] (CPT), [*] (CMO), [*] (Samsung) and [*] (LPL). The topics covered were supply/demand situation, March and April 2003 production quantity and price,¹⁴⁵ capacity expansion and other related topics. The report presents very detailed tables on prices of numerous sizes and sales by size and company for January, February, March and April 2003. The report also states the following: "*Even though [*] has been insisting on an increase in price by itself, the other companies have been carefully considering an increase in price. NB*

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145 In respect of this item, the report presents very detailed tables on prices of numerous sizes and sales by size and company for January, February, March and April 2003 of AUO, CPT, CMO, Hannstar and Samsung.

price for April will be stayed for all companies, except for []. Price for MNT 15" will be increased by [*], 17" by about [*]. The atmosphere was to carefully prepare for increases in the future [...] [*] 15" M price [*] for April looks abnormal. It is important to note that [*] 17" M prices stayed. –[*] has injected P4 for 15" M to check [*] attempts to increase price.[...] [*] confessed that its price for 15" NB to [*] is [*]/Mar. [*]/April [...] Must continue to monitor cost of competitors to adjust prices".*

148. That meeting is confirmed by [*] which specifies that the meeting was hosted by it.¹⁴⁶ [*] also submits internal e-mails drafted [*] on 13 and 14 March 2003 in preparation of the meeting on 20 March and, thereafter, on 21 March 2003, with the minutes of the meeting. As to the internal e-mail of 13 March 2003, [*] writes: *"As the Industry Crystal Meeting is scheduled for next week, I have communicated in advance with our competitor counterparts in advance to discuss APR 2003 pricing trends and intentions [...] Mixed intentions on APR price increase versus maintaining MAR price level."* Target prices are also communicated to [*] from [*] and [*].¹⁴⁷ The internal e-mail of 14 March clarifies the required participation of different [*] business units, stating that *"TVBU will be notified of ongoing meetings and participation dependent on need and/or availability"*.¹⁴⁸ The minutes of the meeting report: *"[*] Volume Allocation Guideline for Customers: 1. Use only [*] of planned total output volume for allocation commitments. 2. Allow [*] volume buffer for supporting upsize volume requests at higher price"*. [*] also threatens to de-commit allocation if MNT price goes below USD [*] for 15" and 17" panels, respectively. The minutes contain very detailed capacity plans and prices for March and April 2003 of [*] and [*]. The minutes contain the reference *"Extremely Confidential – Must NOT Distribute"*.¹⁴⁹ [*] also submitted the expense reports of the meeting.¹⁵⁰
149. [*] confirms that the meeting on 20 March 2003 took place and submits the minutes prepared by its employee, [*].¹⁵¹ The participants reported on production volume, production adjustments and demand. [*] is reported to note that *"demand for 15" is strong, but no new production capacity increase for 15" in the world, it is believed that there is opportunity to again adjust for a higher price"*. The notes contain a table on prices of different panel sizes, including 20"TV (for [*]) as well for February, March and April. The notes end by establishing that *"overall NB15" price increased by [*], M15" other makers will adjust for an increase of between [*]*.
150. An internal e-mail dated 10 April 2003 drafted by [*] in preparation of a Crystal Operation Meeting shows that the meeting was scheduled to take place on 11 April 2003, at the Crowne Plaza Hotel, Taipei.¹⁵² Participants were AUO, Samsung, LPL, CMO, CPT and Hannstar. The meeting was hosted by [*]. The major topics of the meeting included market information and pricing and capacity utilisation for

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April/May.¹⁵³ [*] also wrote minutes of the meeting in an internal e-mail of 12 April 2003. The e-mail shows agreement on prices: *"General APR-MAY MNT panel pricing adjustment consensus: 17" Keep April Price into May, 15" Target +US[*] increase from April"*.¹⁵⁴ [*] also submitted an expense report on the meeting.¹⁵⁵

151. [*] also reports on the meeting. According to the notes of [*] the parties reported on capacity and production concerning MNT, NB and TV panels (the latter only for [*]) and prepared a table on output for March, April and May. Participants agreed that demand was strong. Concerning prices the meeting summarised that *"Due to strong demand, [*] has decided to increase price in May despite the position of other makers in the market. Contrary to [*] tough position, [*] believes that cost is sufficiently reflected in the current price and that to further increase price will weaken market acceptance. [*] is unwilling to increase price, but if it must, only an increase of [*] at most. [*] is the toughest among [*] and will increase overall to \$[*] and [*] are the most conservative, their current price in the market is said to be [*] and they only plan to increase price by [*] in May later consider an increase of [*]"*.¹⁵⁶
152. On 14 May 2003, a Crystal Operation Meeting took place at the Crowne Plaza Hotel Taipei. The meeting host was [*]. Participants were AUO, Samsung, LPL, CMO, CPT and Hannstar. In similar vein with the previous Crystal Meetings, the major topics discussed included price agreement, market information, pricing trend and capacity utilisation. The minutes¹⁵⁷ of the meeting drafted by [*] state *inter alia*: *"General MAY-JUNE MNT Panel Pricing Adjustment Consensus: 17" Keep May Price into June, 15" – Maintain [*] target from May [...]* General Discussions • *Do not allow for price reductions – upcoming price fluctuations should be managed together"*. The minutes also convey specific items concerning pricing, customers and production of the participant companies. The minutes also state: *"[*] • Decision to increase NB 15" [*] • Strategy to decrease 17" volume support at same price or request +[*] for volume requests [...][*] • [*] strategy to maintain pricing for May into June. • New 17" promotional pricing in APR [*]~[*] BUT +[*] in May [*] • Increasing 17" price now to decrease past gap with [*]"*. Attached to the minutes, there is a table presenting the competitors' prices for different sizes of LCD panels for notebooks from February 2003 to June 2003 as well as a capacity utilisation and expansion plan of the participant companies for NB, MNT and TV panels until June 2003. According to the table, information on TV panels was provided by [*] from February, by [*] from March and by [*] from April and by [*] from April. [*] had foreseen no production until June, when the table stops. The e-mail indicates that the next Crystal Meeting was planned for 11 June.
153. [*] submits that on 11 June 2003, a Crystal Operation Meeting took place at the Crowne Plaza Hotel, Taipei. The meeting host was [*] and all six companies participated. In an internal e-mail of 11 June 2003, [*] writes the minutes of the

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meeting¹⁵⁸ reporting *inter alia* agreement on pricing: "General Consensus • Must hold 17" JUN/JUL pricing to maintain overall pricing stability. • 17" pricing is most important single factor to market now. • Must fix 17" pricing even if faced with customer volume reduction.[...] • Pricing fix until AUG equals to optimized pricing base for Q4 2003" and joint demand analysis to foster price increase: "[*] still strong – no change in pricing policy and allocation plan. [...] • Worry about [*] impact [...] • [*] overview [...] • [*]: no demand decrease [...] Europe Jun~Aug summer season: May have lower demand. Foresee impact on [*] (commercial) and [*] projects. • After mid-June also summer time-frame in Japan [...] • [*] will not decrease pricing in Q3[...] • Chance to increase pricing by mid-Aug or after [...] • [*] MNT set price increase in May and again in June [...] • Plan to increase [*] MNT + NB pricing to [*] in JUL". Attached to the minutes, there is a table presenting the competitors' prices for different sizes of LCD panels for notebooks and monitors from February 2003 to July 2003 as well as a capacity utilisation and expansion plan of the participant companies for NB, MNT and TV panels until July 2003. The e-mail indicates that the next Crystal Meeting was planned for 9 July.

154. [*] also provides detailed minutes¹⁵⁹ of the meeting of 11 June 2003 indicating that the participants were AUO [*], CMO ([*]), Hannstar ([*]), LGP ([*]) and Samsung ([*]), while [*] was represented by [*]. According to [*], [*] explained that "15" high price can no longer sell. In June, using technical operation and promising to meet only [*] of hpq planned amount, to create order overload illusion and prevent price cutting by hpq." [*] is noted to explain that "the overall client base for NBPC/LCD monitor/TV orders are the world's leading makers including Europe, [*], so current allocation and price policies remain unchanged. [...] If current monitor/NB clients reduce orders, the production capacity will be shifted to produce LCD-TVs in response." [*] is reported to "reduce low end M15" ratio and focus the entire FPM product line mainly on hi-end M17" and M19". [*] is reported to elaborate in more details on the TV segment stating that it was "actively entering China's TV market; TV30" demand is more than supply." The minutes contain two tables on price review for May, June and July for the six companies concerning different monitor and notebook panel sizes, including TV panels of 20" and 17"W. The note ends expressing as follows: "all makers hope to maintain the price. The list above is only ideal." The next operation meeting was scheduled for 9 July.
155. [*] submits that on 9 July 2003, a Crystal Operation Meeting took place at the Howard Plaza Hotel in Taipei. The meeting's host was [*] and all six parties participated. The topics concerned were market information, pricing trend and capacity utilisation. In an internal e-mail of 9 July 2003,¹⁶⁰ [*] informs his [*] colleagues about the discussion on the production status of the participants' G[eneration]5 and G 4.5 production facilities of the participants. Summarizing the General Consensus it is stated that they "Must hold 17" JUL pricing to maintain overall pricing stability. Demand expected to revive by August. July is critical point

¹⁵⁸ [*] The minutes of [*] bear the mention "***Extremely Confidential – Must NOT Distribute.**". The minutes also refer to the date of the next Crystal Meeting. [*]

¹⁵⁹ [*]

¹⁶⁰ [*]. The minutes of [*] bear the mention "***Extremely Confidential – Must NOT Distribute.**". [*]

to hold price. [*] requests [*] to be Minimum 17" Price – ALL vendors¹⁶¹ [...] [*] Expressed Strong Intentions of no 17" Price Reductions (Even if Lose Market), Main concern: How will market consume new 100K 17" capacity from [*] Response/Pricing Strategy – Position [*] below [*] level. The minutes continue with statements of each company. [*] is reported to say "17" July Price Hold Flat – Target No Price Decrease Until Sep/E; Any Q3 price changes should be minor adjustments (no serious oversupply), Q3 17" volume expansions should be consumed by market. The participants also discussed market strategy relating to TV panels. [*] reports capacity reallocation plans from Monitor to NB and TV. [*] also reports that its allocation policy (TV, NB, MNT) is based on the available profits. [*] also plans to shift capacity from MNT to NB for better margins. It also reveals its target price and output plans per size and application. Attached to the minutes, there is a table presenting the competitors' prices for different sizes of LCD panels for notebooks and monitors from February 2003 to August 2003 as well as a capacity utilisation and expansion plan of the participant companies for NB, MNT and TV panels until August 2003. The e-mail indicates that the next Crystal Meeting was planned for 5 August.

156. [*] also submits the notes taken at the 9 July 2003 meeting.¹⁶² Participants were AUO ([*]), CMO ([*]), Hannstar ([*] others), LGP ([*]) and Samsung ([*]). [*] is reported to state that "the overall business plan is to target high profit margin NBPC and TV. The production of monitor is merely a way to absorb any available production capacity." Then it adds that "the demand for 30" TV is greater than the supply. [*] plans to increase price to between [*], originally around [*]." [*] presents its strategy as follows, "If the current monitor/NB customers cut down on orders, production capacity will shift to LCD-TV as a countermeasure. [...] The demand for 19" is stronger than 15"/17". Due to the gradual increase in world-wide supply, there will be more supply than demand for 17". Despite this, the [*] is determined not to lower price for 17" from July to September. [*] will increase production for 19" and merely maintain the current level of [*] per month for 17". [*] also expressed that "The policy for 17" by the [*] is not to lower price in July." The notes end with a table presenting the prices of the six companies for different NBPC, monitor and TV panel sizes for May, June, July and August. The notes end with the conclusion that "because of supply more than demand for 17", only [*] are still determined to stick to their price for 17". [*] will have a small price reduction. Due to the off-season period in July and August, business will be slower. Each maker hopes to try to firmly stand by its sales price, the chart above is only an ideal target."
157. [*] states that on 5 August 2003, a Crystal Operation Meeting took place at the Howard Plaza Hotel in Taipei, hosted by [*]. The participants (AUO, Samsung, LPL, CMO, CPT and Hannstar) and the topics discussed were the same as in the previous Crystal Meeting (see recital 155). In an internal e-mail¹⁶³ containing the minutes of the meeting, [*] provides information *inter alia* about [*] assessment of the Korean companies' combined market share ("Korea TFT-LCD market share: [*]/200[2],

¹⁶¹ The price table attached to the minutes reproduces and applies this request for 17" for all competitors except [*] where the price is [*].

¹⁶² [*].

¹⁶³ [*]. The minutes of [*] bear the mention "***Extremely Confidential – Must NOT Distribute.***"

[*]/2003, [*]/2004 (Estimated)". Discussion on market situation was followed by discussion on pricing, concluding in a "General Consensus • Target up to +[*] Adjustment for NB panels (AUG~SEP) • Target up to +[*] Adjustment for 15" MNT panels (AUG~SEP)", participants also shared their pricing intentions. [*] told of its intention to "Target 15" MNT August Pricing: [*] • Target 17" MNT August Pricing: [*] • Target 19" MNT August Pricing: [*]"[*] explained that "15" MNT Pricing: +[*] JUL~AUG, Target Minimum [*] by [*]".[*] contributed saying that "Target +[*] for Both NB/MNT in AUG • 15" XGA NB [*] • 15" MNT [*] SIP". Attached to the minutes, there is a table presenting the competitors' prices for different sizes of LCD panels for notebooks and monitors from February 2003 to September 2003 as well as a capacity utilisation and expansion plan of the participant companies for NB, MNT and TV panels. The e-mail indicates that the next Crystal Meeting was planned for 4 September.

158. [*] submits that on 10 August 2003 an internal e-mail was sent by [*] most likely as a reflection on a report made by [*] at the meeting of 5 August. In the e-mail he expresses concerns that "regulations and controls to price raise is being loosened under the expectation of sustaining shortage", thereby showing that the competitors were controlling and regulating the movement of prices on the market.¹⁶⁴
159. On 4 September 2003, a Crystal Operation Meeting took place at the Crowne Plaza Hotel, in Taipei. It was hosted by [*]. The participant companies and the topics discussed were the same as in the previous Crystal Meeting (see recital 157). In an e-mail containing the minutes of the meeting,¹⁶⁵ [*] who replaced [*] at that meeting states *inter alia* that the next Crystal Operation Meeting will be hosted by [*] on 3 October and will relate to the sharing of the parties' 2004 Business Plans. The participants discussed the market situation, explaining in detail output, production allocation, fab status and perception of demand and supply. The companies provided status summary on shipment plans and pricing. Concerning pricing the note tells: [*] [...] Target Price 17"MNT: USD[*](Oct) [*]17" (MVA)ASP¹⁶⁶ ~[*]. ([*]gap) [...][*]: Target Price 15"XGA NB: [*] (Oct) Target Price 15" XGA MNT: [*](Oct) 5k 15"XGA NB for [*]:[*] share 15"/M [*]". The parties also reached General Consensus of Panel Pricing: "Target to up ~[*] adjustment for NB. (Sep~Oct). Target to maintain ASP for overall MNT. (Sep~Oct). 15"/M: [*] try to keep [*] in Sep/Oct; [*] will up [*] in Sept/Oct." Attached to the minutes, there is a table presenting the competitors' prices for different sizes of LCD panels for notebooks and monitors from February 2003 to October 2003 as well as a capacity utilisation and expansion plan of the participant companies for NB, MNT and TV panels until October 2003.
160. On 3 October 2003, a Crystal Operation Meeting took place at the Crowne Plaza Hotel Taipei. The meeting was hosted by [*]. The participants were [*] (CMO), [*] (CPT), [*] (AUO), [*] (Hannstar), [*] (Samsung) and [*] (LPL). The topics discussed were the same as in the previous Crystal Meeting (see recital 159). An e-mail of 7 October 2003¹⁶⁷ submitted by [*] contains the minutes of the meeting. In

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[*]. The e-mail of [*] bears the mention "***Extremely Confidential – Must NOT Distribute.**". [*]

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ASP stands for "Average Selling Price".

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[*]. The e-mail of [*] bears the mention "***Extremely Confidential – Must NOT Distribute[*]".

the e-mail [*] writes *inter alia* the following: "*General consensus of panel pricing : Target to increase +[*] for NB. (Nov). Target to increase +[*] for MNT. (Oct.) Possible remain stable in Nov price*". Participants also discussed shipment volumes and capacity plans and internal capacity allocation for TV panels for September, October and November. The parties also discussed their 2004 output plans, concluding that even without the contribution of the [*] planned a TV panel output of [*], while the expected demand would only be around [*] or [*]. The parties therefore warned of the possibility of a serious oversupply of TV panels in 2004.

161. The meeting is confirmed by [*]. A document¹⁶⁸ provided by [*] concerning the meeting states the following: "[*] [...] *Driving price increase strongly and customers accepts the raise. Quoting [*] for 14" (N) and accepted. [*] [...] This balance is fragile based on 15" MNT demand and if there is leakage in MNT demand, it will give an immediate impact on general TFT demand. So, [*] also agrees to increase 17"(M) and NB panels price moderately, but NOT FOR 15" MNT! [...] [*] is positive in price raise up to reasonable level. They will raise the NB price in October and November and pull it down to October price level in December*" The minutes close with a detailed table on the parties' monthly output and market share in different panel sizes for NB, MNT and TV applications from July 2003 until September 2003.
162. [*] describes that on 21 October 2003, a meeting took place with [*] and provides its internal minutes concerning that meeting, showing discussion on the parties' business plans, including planned output per product type and size and capacity data sharing.¹⁶⁹
163. [*] describes that a similar meeting took place on 21 October 2003 with [*] and provides its internal minutes concerning this meeting showing discussion on the parties' business plans, including the details of the completion of the 5th Generation fab of [*]¹⁷⁰
164. [*] reports that between 3 and 6 November 2003 [*] employees visited the Taiwanese competitors ([*]) and discussed expected developments of capacity and production in 2004.¹⁷¹
165. [*] states that on 3 November or 7 November 2003 it hosted a Crystal Operation Meeting between the six companies. [*] explains that it does not recall exactly the date, identity of the participants and location of the meeting. It provides, however, a contemporaneous internal document summarising the highlights of the meeting drafted by [*] ([*]) and sent to [*,*] ([*]) along with an Excel file of pricing and capacity utilisation data. Although in that document both 3 November and 7 November are mentioned as the date on which the meeting took place,¹⁷² [*] also provides another document drafted by [*] serving as a reminder of the upcoming

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[*] Participants were from CPT: [*] and from SEC: [*,*]

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[*]. Participants were from AUO: [*] and from SEC[*].

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meeting and stating that it was scheduled for 7 November 2003.¹⁷³ The minutes report, *inter alia* on planned shipments, show agreement on future pricing: "*General Consensus of Panel Pricing: Target to increase +[*] for NB (Dec price). – Target to maintain price for MNT (Dec price). – Target to maintain price for TV (Dec price).*" The parties are reported to explain: "[*]: *–General policy: increase ~[*] for all model in Dec/03*". The minutes show a very detailed discussion of capacity allocation and output plans. Attached to the minutes, there is a table presenting the competitors' prices for different sizes of LCD panels for notebooks, monitors and televisions from January 2003 to November 2003 as well as a capacity utilisation and expansion plan of the participant companies until December 2003.¹⁷⁴

166. [*] submits notes¹⁷⁵ prepared at the same meeting. The notes show that [*] explained that it "*faces a great deal of external pressure*", nevertheless "*top management has decided to increase price again, price quote for 15" monitor-using TFT towards \$[*] and 15" NB-using TFT is towards \$[*]*". [*] warns that "*TV distribution channels have started to stockpile inventory*". [*] reports that it has "*decided on a price increase of \$[*]pc on each size in December*". [*] presents that it is "*working hard towards the directions of M15" at \$[*] and M17" at \$[*]*". [*] reports that it "*has adopted a more conservative attitude regarding price*". The December pricing is summarized as follows "[*] will increase by \$[*]; [*]= increase by \$[*]/pc; [*]=Monitor price will be kept the same and NB will increase by \$[*]; [*]=Monitor will increase by \$[*] and NB use will increase by \$[*]; [*]=M17" will be kept the same, the highest price for M15" is limited at \$[*] and NB-use will increase by \$[*]".
167. On 10 December 2003, a Crystal Operation Meeting took place between AUO, Samsung, LPL, CMO, CPT and Hannstar. The meeting was hosted by [*]. The minutes of the meeting drawn up by [*]¹⁷⁶ ([*]) convey *inter alia* the following: "*General consensus of Panel Pricing: increase +USD[*] for NB & MNT in Dec/03. Target to increase +USD[*] for NB & MNT in Jan/04. Maintain TV price in Dec/03*". The minutes show very detailed discussion on prices, output and capacities, capacity plans and demand level for all three applications. Attached to the minutes, there is a table presenting the competitors' prices for different sizes of LCD panels for notebooks from February 2003 to January 2004 as well as a capacity utilisation and expansion plan of the participant companies for all three applications until December 2003, a total for 2003 and 2004.
168. [*] also refers to a meeting in December 2003. More specifically, on 14 December 2003, in an internal e-mail to [*], [*] presents a summary of the meeting. His summary largely corresponds to the minutes of [*] (see recital 167) above. The report refers *inter alia* to the following: "*2. Price Increase by \$[*] compared to November (in the case of 15"N/15"M/17"M), considering an increase by about \$[*] in January but having a careful position re a price increase on 15"N/M. [*] is*

¹⁷³ [*] also provides an invoice from the Howard Plaza Hotel for a business meeting on 7 November 2003, [*]

¹⁷⁴ The e-mail of [*] bears the mention "***Extremely Confidential – Must NOT Distribute.***".

¹⁷⁵ [*]

¹⁷⁶ [*] The e-mail of [*] bears the mention "***Extremely Confidential – Must NOT Distribute.***". [*] also submits travel expenses for this Crystal Meeting, [*]

strongly denying a special price (\$[]) for [*].[*] admitted \$[*] in November (special deal to take care of early production from L6) but indicated that it raised it to \$[*] in December".*¹⁷⁷ The figures in the table attached to the summary correspond exactly to the figures provided in the capacity utilisation and expansion plan attached to the minutes of [*] (see recital 167).

169. [*] provides the page of a diary showing that on 21 December 2003, [*] representatives (among others, [*]) met [*]'s representatives. Discussions focused on prices. It is written: "*MNT 15" \$[*] max; panel \$[*]; 17" \$[*] max.*"¹⁷⁸

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170. On 16 January 2004, a Crystal Operational Meeting took place in the Howard Plaza Hotel, in Taipei. The meeting's host was [*] and participants were AUO, Samsung, LPL, CMO, CPT and Hannstar. Two contemporaneous internal e-mails, the first sent by an employee of [*] to [*] on 19 January 2004¹⁷⁹ and the second by an employee of [*] on 27 January 2004,¹⁸⁰ show that the main topics discussed were past and future prices and pricing trends for different types of panels, a "*G[eneration]5 expanding plan of LCD panel suppliers*", shipment plans per product for each company and assessment of future demand for specific panel sizes. [*]'s e-mail summarizes the conclusions on pricing as follows: "*General Consensus of Panel Pricing: 1. Keeping flat for NB & MNT in Jan & Feb /04.*" [*]'s e-mail presents how the assessment of the market led to joint conclusions on future capacity utilization in order to stabilize prices: "*- Everybody felt that 15.4" (N) is on a weak trend and expect 15" (N) will be balanced in January and be in a slight over-supply in February. - So, there is a movement to reduce 15,4" (N) and increase 14,1"(N) or 17"(M).- [*] reduced 15"(N) and is converting its focus to 15"(M).*" The e-mail ends with a detailed table on capacity and on price trends including monthly prices for December, January and February for different sizes of NB, MNT and TV panels.¹⁸¹
171. On 5 February 2004, a Crystal Operational Meeting took place. The meeting's host was [*] and participants included representatives of AUO, Samsung, LPL, CMO, CPT and Hannstar. A contemporaneous internal e-mail sent by an employee of [*] on 6 February 2004¹⁸² and the notes taken at the meeting by an employee of [*]¹⁸³ show that the main topics discussed were past and future prices and pricing trends for different types of panels, shipment plans, capacity utilisation data per product for each company and assessment of future demand for specific panel sizes. The conclusion on prices in [*]'s e-mail reads as follows: "*General Consensus of Panel Pricing: 1. Keeping flat for NB & MNT in Feb & Mar. /04.*" [*]'s e-mail also shows that panel producers were able to reallocate capacity among panel applications in order to influence demand. [*] is reported to state that it "*move[s] capacity to TV&MNT, maintain NB*", while [*] is reported to allocate more capacity to TV in

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response to strong demand. [*] is also reported to have said: *"Keep ASP for all model!"*¹⁸⁴ The minutes end with detailed tables on notebook and monitor panel price trends and capacities for notebook, monitor and TV applications.

172. An interview with the president of [*] by a newspaper triggered phone calls by [*] as is shown by an internal e-mail of 7 February 2004 submitted by [*]¹⁸⁵ It wished to clarify whether the statements seen in the newspaper were true and discussed sales volumes. In an internal e-mail summarizing the calls, [*] states that [he] *"will continue to check competitor's movements and depending on situation will look for cooperation plan."* The e-mail was sent among others to [*] and [*]. The e-mail ends with a report on a call with [*], where [*] was informed about sales data of [*].
173. On 5 March 2004, a Crystal Operational Meeting took place. The meeting's host was [*] and participants included representatives of AUO, Samsung, LPL, CMO, CPT and Hannstar. A contemporaneous internal e-mail sent by an employee of [*] on 11 March 2004¹⁸⁶ and the notes taken at the meeting by an employee of [*]¹⁸⁷ show that the main topics discussed at that meeting were past and future prices and pricing trends for different types of panels, the analysis of the results of price coordination, shipment plans and capacity utilisation data per product for each company. The conclusion on prices in [*]'s e-mail reads as follows: *"General Consensus of Panel Pricing: 1. 15" NB price drop in Mar. 2. MN price up in some sizes."* According to the e-mail, [*] has referred again to the importance of ASP as a general guidance in pricing, saying: *"General Strategy: - Cut NB shipment to maintain ASP" "* and to *"maintain ASP in MNT product"*. [*] is also reported to state concerning TV panels that *"ASP trend: maintain"* and it also states in relation to 30" TV panel ASP that there were *"rumor about [*] 30" quote ~[*]"*. In reply *"[*] claim \$[*] level"*. Concerning a similar issue, [*] is reported to ask its competitors to *"ignore 19"/20" noise from customers"* as in reality there was *"no plan for 19" promotion"*. The minutes end with tables on panel pricing in the first trimester for NB, MNT and TV panels and capacities in the first quarter for the same products.¹⁸⁸
174. On 2 April 2004, a Crystal Operational Meeting took place. The meeting's host was [*] and participants included representatives of AUO, Samsung, LPL, CMO, CPT and Hannstar. Two contemporaneous internal e-mails, the first sent internally by an employee of [*] to [*] on 3 April 2004,¹⁸⁹ and the second by an employee of [*] on 5 April 2004,¹⁹⁰ as well as the notes taken at the meeting by an employee of [*],¹⁹¹ show that the main topics discussed were past and future prices and pricing trends for different types of panels, shipment plans and capacity utilisation data per product for each company. [*]'s e-mail includes the following extract: *"3. Price*

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[*]. The names of the participant companies can be inferred from the minutes of the meeting drawn up by [*] of [*] and [*] of [*]. An expense report is submitted on the meeting in [*].

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- Re MNT, most makers have a plan to increase their price by \$[*] in 15" and 17" and to quote \$[*] in 17" [*] (a \$[*] increase) but not easy to negotiate.
 - In the case of MNT, despite shortages, giving a \$[*] rebate to [*].
 - It seems that based on face price, 15"M price is \$[*] and 17"M price is \$[*]
 - In the case of NB, efforts are made to resist a decrease in price for big dealers (customers). Maintaining a minimum face price, they are providing compensation (e.g., MKT Fund, other benefits and package deal), but it is hard to find out the amount or level of the compensation. In the case of 2nd Tier, 15"M price is \$[*]~ [*] so considering the face price only, we have a dual range pricing situation now.
 - Due to [an other competitor]'s low price quote (15" NB: less than \$[*]; 15.4" NB: less than \$[*]), the situation is more difficult.
 - [*] announced a decrease in its TV price (30": \$[*] (including interver); 27": \$[*]; 20": \$[*]; 23": (sample available): about \$[*]. [*] also decreased its price significantly (30": [*]; 26"\$[*]; 20": \$[*] (SVGA)) – a \$[*] decrease in 30" and a \$[*] decrease in 26" compared to Marc. SS also plans to quote \$[*] for 32" to big customers."

175. Similarly to the previous meetings [*] refers again to the importance of ASP as a general guidance in pricing, saying: "Plan to maintain/keep ASP, even need to compr[om]ise in shipment." and concerning NB "reject to lower ASP, even decrease shipment!!" [*]'s minutes end with tables on all three application panel prices and capacities.¹⁹²
176. On 6 May 2004, a Crystal Operational Meeting took place. The meeting's host was [*] and participants included representatives of AUO, Samsung, LPL, CMO, CPT and Hannstar. [*] reports on that meeting by submitting the minutes prepared by [*].¹⁹³ The minutes show detailed discussion on output, prices and capacities, future plans, market strategy etc. A contemporaneous internal e-mail sent by an employee of [*] on 7 May 2004¹⁹⁴ and the notes taken at the meeting by an employee of [*]¹⁹⁵ also show that the main topics discussed at the meeting were past and future prices and pricing trends for different types of panels, shipment plans and capacity utilisation data per product for each company. The conclusions on pricing are summarized in the [*] e-mail as follows: "General Consensus of Panel Pricing: 1. NB: slow in demand, slightly weak in ASP. 2. MNT: steady demand. ASP stable, some worry about >17". 3. TV: everyone lower ASP in order to stimulate demand." The minutes of [*] also present detailed tables on prices and capacities regarding NB, MNT and TV applications.
177. On 4 June 2004, a Crystal Operational Meeting took place. The meeting included representatives of AUO, Samsung, LPL, CMO, CPT and Hannstar.¹⁹⁶ The minutes taken by [*] of [*]¹⁹⁷ show detailed discussion on the market situation during which the parties shared pricing and output information, future business plans, expectations

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[*] (document submitted by [*]),[*].

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[*] (document submitted by [*]).

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The names of the other participant companies can be inferred from the notes of the meeting taken by [*] (document submitted by [*]).

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[*] (document submitted by [*]).

and forecasts. The minutes also referred to the European market stating that there was a *"slight seasonal slow down in the European market with respect to MNT Panel, but the effect of this on each company was different"*. Concerning June prices the minutes show a discussion on future pricing policy of the parties on the three applications. The minutes end with a table presenting output data per panel size for each company from January to June. The notes taken at the meeting by an employee of [*]¹⁹⁸ also show that the main topics discussed at the meeting were past and future prices and pricing trends for different types of panels, shipment plans and capacity utilisation data per product for each company. [*] also confirms that the meeting took place.¹⁹⁹

178. On 8 July 2004, a Crystal Operational Meeting took place. The meeting's host was [*] and participants *included* representatives of AUO, Samsung, LPL, CMO, CPT and Hannstar. Two contemporaneous internal e-mails, the first sent by an employee of [*] on 8 July 2004²⁰⁰ and the second by an employee of [*] to [*] on 9 July 2004²⁰¹ show that the main topics discussed were past and future prices and pricing trends for different types of panels, shipment plans and capacity utilisation data per product for each company. The conclusion on prices in [*]'s e-mail reads as follows: *"General Consensus of Panel Pricing: 1. NB: same as June, slightly weak in ASP. 2. MNT: ASP try hard to keep drop. 3. TV: everyone lower ASP in order to stimulate demand. 4. [*] / [*] predict that Q4 will be going up because of the consuming of monitor and notebook stock in channel"*. The minutes of [*] end with the usual tables on prices and capacities. [*]'s e-mail states that *"principal people from [*], etc. could not participate in the meeting so no in-depth discussion was possible"*. Nevertheless the minutes show discussion of prices, pricing intentions, inventories and output plans.
179. On 21 July 2004, a Crystal Operational Meeting took place at the Holiday Inn Rebar Crowne Plaza in Taipei. The meeting's host was [*] and participants included representatives of AUO, Samsung, LPL, CMO, CPT and Hannstar. A contemporaneous internal e-mail exchange between employees of [*] on 20 July 2004²⁰² and an e-mail sent by a [*] employee to various managers of [*] on 22 July 2004²⁰³ summarising the meeting shows that the main topics discussed were the necessity of minimum price lines and the reduction of production, past and future prices and pricing trends for different types of panels, shipment plans and capacity utilisation data per product for each company.
180. In the e-mail exchange within [*] prior to the meeting, one of its employees summarized some of the competitors' plans to cut production and wrote: *"It's very difficult to have the agreement among all of TFT makers on reduction of output. But, if [*] plus [*] announce their intension [sic] to cut production, I believe it will have big help for whole industry."* Another [*] employee answered: *"I have organized an*

¹⁹⁸ [*] (document submitted by [*]).

¹⁹⁹ [*].

²⁰⁰ [*] ([*]).

²⁰¹ [*].

²⁰² [*]

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urgent 'Crystal' meeting on 7/21 for representatives from []. The main subject will be production reduction. I'll report the meeting conclusion to you".*²⁰⁴

181. [']s e-mail summarising what was said at the meeting states that ['] had called it *"because we desperately need to find a solution, considering the dramatic change in the market condition and sharp decrease in price during the most recent two weeks".* The e-mail explains that the participants were *"surprised by an unexpected sharp decrease in price but generally calm. Seemed they already expected this problem and basically agreed on the necessity of the minimum price lines and the reduction of production."* The participants talked about inventory level, capacity and price adjustments and exchanged the usual detailed data. [']s representative called for confidentiality: *"Reminding that DRAM makers were subject to Anti-trust law charges two years ago, requested everybody to take care of security/confidentiality matters and to limit written communication."*²⁰⁵
182. On 10 August 2004, a Crystal Operational Meeting took place. The meeting's host was ['] and participants included representatives of AUO, Samsung, LPL, CMO, CPT and Hannstar.²⁰⁶ A contemporaneous internal e-mail sent by a ['] employee²⁰⁷ to ['] ['], on 11 August 2004 summarising the meeting shows that the main topics discussed were past and future prices and pricing trends for different types of panels, shipment plans and capacity utilisation data per product for each company. [']s e-mail contains the following extracts:

"The numbers below were provided by competitors so may change depending on situation (especially during this changing period) although judging from past experience they were 90-95% correct. [...] The numbers below are believed to be almost confirmed numbers [...] In conclusion, the sales numbers below are generally accurate." "1. Atmosphere: surprised by sharp decreases in price and demand and strong customers' push. Relatively, ['], which is relying much on MNT panel, seemed to be impacted most. ['] suggested not to lower the September price setting the August price as the bottom line. [...] ['] strongly urged everybody not to engage in overly aggressive price competition. ['] made the excuse that it does not have any choice but to reduce price due to its weak position. It is hard to control or learn price because (a) there are big differences in price by customer or by dealing time and (b) they are using irregular methods. If a minimum price guideline is established, it may be possible to prevent a completely unreasonable price although the guideline is not binding. Therefore, set minimum price guideline. If a more effective and powerful measure is sought, we need to hold a Top Management Meeting (but, Anti-Trust problem?)

[...]

(5) ['] [...]

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- The only solution would be reducing production and maintaining the current price. Requested everybody to agree on maintaining at least the August price in September (setting the August price as the bottom line)."

183. [*]'s e-mail also contains a "Price Guide Line" agreed at the meeting with minimum prices for monitor panels of 15", 17" and 19" and notebook panels of 14.1", 15" X, 15" SX+ and 15.4".
184. In an internal e-mail submitted by [*] in its written reply to the SO, [*] were addressed by [*] who presented the discussion of a suppliers meeting held on 3 September 2004.²⁰⁸ Participants were AUO, CMO, CPT, Samsung, Hannstar and LPL. Though companies were confident that after the terrible August the level of demand would recover, it was *"decided to make a notice to each Top Management that we should have realistic target in order to avoid unnecessary competition and to have stable price."* At the meeting [*] claimed that over-investment leads to over-supply, that *"price is coming close to the industry cost"* and that they *"want to stop price war"*. [*] explained that except for them, *"every enterprise is planning to increase their production. How can we stop the declining of price? We should plan and operate conservatively and make a stable price first."* [*] also emphasised that *"although price is coming close to the cost [...] net price will get even lower"* and therefore *"each enterprise should make wise decision"*.
185. On 6 October 2004, a Crystal Operational Meeting took place. The meeting's host was [*] and participants included representatives of AUO, Samsung, LPL, CMO, CPT and Hannstar. A contemporaneous internal e-mail sent by an employee of [*] on 6 October 2004²⁰⁹ show that the main topics discussed at that meeting were pricing issues, output and cost levels.
186. On 4 November 2004, a Crystal Operational Meeting took place at the Holiday Inn Rebar Crowne Plaza in Taipei. The meeting included representatives of AUO,²¹⁰ Samsung, LPL, CMO, and CPT. A contemporaneous internal e-mail sent by an [*] employee [*] (and copied to [*]), on 5 November 2004²¹¹ summarising the meeting shows that the main topics discussed were past and future prices and pricing trends for different types of notebook, monitor and TV panels, shipment plans and capacity utilisation data per product for each company. The e-mail shows the discussion on prices: *"Participants blamed [*] for price decreasing during high demand season (October), and finally reached a "consensus to maintain 17" related price at more than \$[*]".* [*] is reported to explain that: *- Considering costs, it does not make sense to reduce price below \$[*] so desire efforts to maintain \$[*]. - In response to [*]'s request (\$[*]), answering no less than \$[*] → request join this strategy."* The e-mail of [*] also shows that these discussions concerned the customer [*], which is a company connected to the cartel member [*]: *"[*]: [...] [*] is matching the price set*

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[*]

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[*], see also, from [*] (which erroneously identifies the date as 7 October 2004 instead of 6 October 2004), and the expense report in [*]

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[*]. Although [*]'s statement says that, according to one of its employees' memory, Hannstar attended the meeting, the contemporaneous internal e-mail from [*] states that *"HSD didn't attend due to sales WS."*

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[*]

by other companies ([*]: \$[*], [*]: less than \$[*]). Asked whether [*] quoted \$[*]/17" to [*] in November so answered that it is not decided yet". [*] also confirmed that the meeting took place.

187. Based on the comparison of the figures appearing in notes of [*] it is likely that some minutes submitted by [*]²¹² were taken at the meeting of 4 November 2004. According to the minutes the parties discussed total sales volumes for October for MNT, NB and TV panels. Capacity, output, demand and demand trends were also discussed. The parties discussed prices as well. The notes reflect the discussion of the low prices applied by [*] (see recital 186), presenting in detail its pricing policy towards [*].[*] claims that the price quoted for [*] (\$[*]) is due to *"a special, preferential treatment"* and that they will *"stick to \$[*]for other customers"*. It was emphasised that *"Makers could not communicate honestly at the meeting, in fear that the actual price will become the others' high-end baseline quoting standard and they will quote a few dollars lower to grab orders, providing even less restraint over prices. [*] believes that given the current opportunity of customers in peak distribution season, it is the best time to hold on to the price. It emphasized to not pay attention to customers' price reduction request or the prices of fellow makers. With no profits and even losses, selling more will cause more losses"*. The notes also show that the parties were able to reallocate capacity among the different panel applications in order to influence demand. The notes state concerning [*] that *"it claims that it will only turn to starting 17" FPM production if the TV market demand is limited and it has no other alternative"*.
188. According to an internal presentation that [*] submitted with its reply to the SO, a meeting took place on 6-7 December 2004 with the participation of AUO, Samsung, LPL, CMO, CPT and Hannstar. During the meeting the parties presented the progress of construction of new fabs, their capacity and the date of their starting up.²¹³
189. On 8 December 2004, a Crystal Operational Meeting took place. The meeting included representatives of AUO, Samsung, LPL, CMO, CPT.²¹⁴ A contemporaneous internal e-mail sent by a [*] employee to [*] (and copied to [*]) on 9 December 2004²¹⁵ summarising the meeting shows that the main topics discussed were past and future prices and pricing trends for different types of panels, shipment plans and capacity utilisation data per product for each company. [*]'s summary of the meeting ends as follows: *"- Suggested maintaining the current price and exchanging price info among makers; suggested to reduce price negotiation from \$[*] units to \$[*] units."*
190. There is also evidence of frequent bilateral contacts of an anti-competitive nature between the participants of the Crystal Meetings.²¹⁶

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216 Meeting [*] on panel prices on 16 March 2004 ([*] – [*]); meeting [*] on market information and pricing issues on 9 April 2004 ([*] – submitted by [*]); [*] on 12 May 2004 ([*] – submitted by [*])

2005

191. Samsung provides an internal e-mail drafted by [*] and sent to [*] dated 4 January 2005.²¹⁷ The e-mail reads *inter alia*: “I updated [*] output status as the attachment, please check. Thanks. By the way, even the newspaper said [*] has been 100% operation in production line. According to [*] internal mentions, they have one 3.5 Gen and 4 Gen line are not in use at this moment”. A table presenting the monthly (November and December 2004 and January 2005) output for monitors by size and integrator (including [*] and [*]) is attached to the e-mail. The table bears the mention: “Source: [*] internal”. It also states: “[*]17” order has been transferred from [*] to [*]”.
192. [*] submits that on 7 January 2005, an operational meeting took place. Evidence of this meeting is an internal e-mail sent from [*] to, among others, [*] (and copied to [*]) presenting the minutes of that meeting.²¹⁸ The minutes reveal that the participants concerned were: AUO, CMO, CPT, Hannstar, Samsung and LPL.²¹⁹ The minutes report the following *inter alia*: “1. Atmosphere – generally achieved respective December sales target; good mood [...] [*] is pushing for a price decrease; need to face this situation by converting NB Capa[city] to MNT. ([*]) – [*]& [*]: not achieved NB target but over-achieved MNT/TV target (especially notable for increased large sized TV volume)[...] [*]: over-achieved its goal ([*]%) due to increases in 17"/19" M; G5: [*] and plans to maintain the current Capa (until March); G5.5 will start mass production ([*]) in April". [*] is also reported to reallocate capacity from MNT to NB and TV application ("due to a demand decrease in 15"M, 680x880 line will be converted to producing 15"N, 15.4"N, 19"M and 20"TV". The minutes also present tables with the volumes of NB, MNT and TV for the year 2005 plan as well as the shipment result and the January plan for the competitors.
193. As regards the meeting referred to in recital 192, [*] provides [*]'s diary with handwritten notes for a meeting "around January 5, 2005 – Re: Crystal Meeting".²²⁰ [*]'s notes present volumes and prices for competitors as well as the exact same figures for [*] concerning certain sizes of notebooks. [*]'s notes also state *inter alia*: "TV 32" more than [*], [*]32" \$[*]".
194. [*] also presents [*]'s notes²²¹ with regard to a "Vender meeting" which took place in January 2005 at the Crown Plaza Hotel and was hosted by Hannstar. The notes present percentages, volumes and prices of the competitors as well as the 2005 sales plan in terms of quantity and amount.

discussing panel prices; [*] in June 2004 concerning negotiations with [*] ([*]– submitted by [*]); [*] in September 2004 on prices quoted for [*] submitted by [*]); telephone call [*] in October 2004 discussion price issues ([*]); meeting [*] on prices to [*] on 23 November 2004 ([*]) – [*].

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219 [*]. As regards this meeting, [*] also submits the relevant expense reports, [*]

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195. [*] provides an internal e-mail from [*] to [*] dated 14 January 2005.²²² The e-mail reads as follows: *"This is the information we've checked with [*] through our Taiwan office today. Please check this in US as well. [*] January price 15": \$[*], 17": \$[*], 19": \$[*]. For the price of 19", [*] initially proposed \$[*], and [*] finalised the price from \$[*] to \$[*].* The information appears to have been obtained directly from [*].
196. On 3 February 2005, a meeting took place between AUO, LPL, CMO, CPT, Hannstar and Samsung.²²³ That meeting is confirmed by [*]. It submitted [*]'s notes taken during the "Vender Meeting" for February 2005.²²⁴ Beside showing detailed discussion on capacity allocation, output and fab use, the notes show that the parties specifically referred to the European market stating that demand for monitors went down by [*]% as compared with the situation in May *"due to Europe summer"*. In addition, [*] submits [*]'s diary for a Crystal Meeting that took place on 3 February 2005.²²⁵ The diary refers to volumes, prices, capacity and internal capacity allocation for TVs for the six competitors.
197. [*] asserts that on 4 March 2005, a meeting took place between AUO, LPL, CMO, CPT, Hannstar²²⁶ and Samsung. [*] submits evidence of the meeting consisting of an internal e-mail sent from [*] on 8 March 2005 to a number of [*] representatives.²²⁷ The e-mail reads *inter alia* as follows: *"1. Atmosphere – Participants felt relieved that price decrease in 17" stopped due to increased demand in 17" and 19" MNT panel. – We emphasized that [*] led price increase and continued to make our best efforts to increase price, [*] felt sorry that they could not join the price increase efforts; all makers including [*] appreciated [*]'s leading role in this matter. Especially, [*] emphasized that [*] is the world no. 1 and sent a message requesting [*] to continue to lead price increase. (In my personal opinion, [*] would like to have [*] take responsibility for the price increase this time because [*] received retaliation from big OEMs last year in connection with its leading efforts to increase price last year). 2. Summary [...] – Most makers stayed their price for 17" in February and plan to increase price selectively in March. (many sales VPs seemed to be getting pressure from top management and shareholders re the price increase). [...] – Emphasized that [*] alone tried to lead a price increase without any support from other makers and succeeded in the price increase. Also blamed [*] for staying their price (not joining [*]) and asked their cooperation in connection with [*]'s price increase attempt in March.[...] Tried to persuade other makers explaining that if we (a) separately keep certain amount of quantities (about [*]), (b) allocate the remaining quantities (volume) to customers, and (c) cut down quantities (volume) for customers who do not accept our price, the customers who do not accept our price will surrender in one week (for lack of inventory). [...] [*] – 17": price stayed in February but is planned to increase depending on customers. [...] [*] – tried to increase 17" price in February but customers complained about the price increase given [*] and [*] did not increase the price, so it gave up increasing the price [...] –*

²²² [*] In that e-mail, [*] states that in order to find out February's prices, they *"have to check directly with the competitors. (please check [*])."* so as to *"correctly assess March's prices"*.

²²³ See [*] and travel expenses, which refer to Howard Plaza Hotel, Taipei for 3 February 2005 ([*]) ([*]).

²²⁴ [*]

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²²⁶ [*]

²²⁷ [*]

[*] [...]maintained 17" price at the current level in February and planned to increase the price in March [...][*] – [*] is a very important customer (MNT/[*]); price is around \$[*] (Jan~Feb); strong pressure for price increase by CEO in March". The parties discussed the European market again, stating that "demand (especially for 17"M) is strong in [*] Europe". [*] was called upon to explain news "based upon info from China [that] there was a \$[*] quote [...][*] admitted that it quoted \$[*] in March". [*] discusses an order received from a related company, [*]. A table on the competitors' sales volumes with very detailed breakdown is attached to that e-mail.

198. [*] also submits [*]'s diary which confirms that a Crystal Meeting took place on 4 March 2005.²²⁸ [*]'s notes mainly present competitors' volumes for NBs, MNTs and TVs as well as some price figures.
199. [*] also states that on 6 April 2005 a meeting took place between AUO, LPL, CMO, CPT and Hannstar.²²⁹
200. On 5 May 2005, a supplier meeting took place. [*] submitted an internal e-mail drafted by [*] and sent to, amongst others, [*] (and copied to [*]) reporting the discussions during the meeting.²³⁰ In relevant part, the following is stated: "I. Atmosphere As there's a possibility that [*] and [*] have been informed about a meeting among vendors, [*] did not attend and only working-level female employee at [*] attended, resulting in an atmosphere that was difficult to promote active discussion. Later, the attendees decided to substantially reduce SM [supplier meeting] and meet at a "private" location among working-level employees – however, I'm not certain whether I should attend. I will determine whether I should continue to attend after attending the June meeting [...][*]: 15 inch NB is most tight and [*] is pursuing increase in its price [...][*]: [...] Currently pursuing an increase of \$[*]to certain customers of 15 inch NB products [...] Planning to gradually reduce production of 15 inch NB.[...] pursuing price of \$[*] to \$[*] during month of May [...][*] [...] Currently trying to increase the price by \$[*]to improve profitability but results are uncertain as demand for NB is slow. MNT is generally tight and currently pursuing an increase in price of \$[*]for 15 inch products". The e-mail also presents tables on volumes on a number of types and sizes of NBs, TVs and MNTs covering the period between October 2004 and May 2005.
201. At this point, due to the change in the level of participation, [*] considered not participating at all in future meetings. In his e-mail²³¹ [*] raises the issue that as [*] would be represented in the future only by a local employee and as [*] had decided previously not to involve its local employees, it "may make sense for us to not attend any future meetings, and I will probably need to gather information through our individual contacts". However it seems that the management of [*] still considered it fruitful to participate in the Crystal Meetings as it continued participation until the very last of those meetings.

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202. [*] presents an LCD market report²³² showing the same points of discussions that took place during the meeting on 5 May 2005. Beside detailed capacity and output data exchange, [*]'s report shows discussion on future prices: "[*] [...] *due to the tight capacity, 20" TV(TN)'s price increases \$[*] to \$[*] in May at \$[*]; the cost (including amortization) for producing 17" at G5 is about \$[*]; if selling at a price above \$[*], 17" will be profitable; [...] [*] [...] implied that due to G5's full production at 19", the price would be decreased to achieve their sales target.* 3. [*] [...] *MNT's increased price in May will be 15" at \$[*] and 17" at \$[*] [...] 20" price will be increased to be \$[*] to [*] in May [...]* 4. [*] [...] *due to NB 15" capacity adjustment and tight capacity in May, the price increases \$[*]; as for the market rumour about the decreasing price of 14" NB, SEC explained that because a customer suddenly cancelled orders, they had to sell the products made from the extra materials at promotional prices*". [*]'s report confirms the change in the level of the participants at the meetings as follows: "5. *The management of [*] and [*] ordered that mid to high level personnel are not allowed to attend this kind of meeting; as such, this meeting will be down sized to be attended by a marketing person from each company to communicate market situations*".
203. [*] also submits the agenda of [*] which shows that on 5 May 2005, an LCD meeting took place.²³³
204. [*] submits that on 9 June 2005, AUO, Samsung, LPL, CMO, CPT and Hannstar met in the Rose Garden, Taipei.²³⁴
205. [*] submits the notes prepared on 14 June 2005²³⁵ at a meeting held in June, most likely on the same meeting mentioned by [*]. Participants were AUO, CMO, Hannstar, LPL, Samsung and CPT. The parties discussed pricing, capacity issues, plans and sales forecasts for June. [*] states that "*FPM's 15"/17" price increase has been confirmed to be \$[*].*" [*] explains that "*32" increased by \$[*]. The lowest-priced A-product is also above \$[*]. 15"/17" FPM panels each increase by \$[*].*" [*] adds that "*the 17" price increased to \$[*]. Some customers already cut orders.*" The note ends with a detailed table on sales data for different panel sizes until May 2005. [*] also submits the notes of [*] taken during the "*Vender Meeting for June 2005*".²³⁶ The notes contain figures on volumes for September, October and December 2005 and for detailed data for [*]. In relevant part, the notes read as follows: "[*] *TV Demand strong, but price can't go up ([*] in May)*".
206. [*] submits²³⁷ that on 27 June 2005 a CEO breakfast meeting was held in the Westin Hotel with the participation of AUO ([*]) and LPL ([*] and [*]). The parties expressed their confidence about market conditions and their plans to increase prices significantly based on notebook shortage. Having discussed the situation of the industry and market expectations the participants expressed their views on market pricing. In [*]'s opinion the ceiling price for 17"M was USD [*] while [*] thought it

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 236 [*]
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to be USD [*]. According to the notes, [*] also submitted that if "[*] were to sustain the 32"TV price at \$[*], [it would] sustain it at \$[*] and above". [*] believed that "the appropriate price difference for a 32" and 37" is \$[*]". For the question of [*] on the USD [*] difference between respective [*] and [*] panel, [*] answered that they would "correct price by maintaining an appropriate price upon taking [*]'s price into consideration". At the end of the discussions on prices, the parties stated that "[*] plan to increase prices for NB Panel by \$[*] each in July and August. [*]'s plans to increase price".

207. On 8 July 2005, a Crystal Meeting took place at the Karaoke Cashbox KTV, Tun Hua Branch, Taipei. Attendees were [*] (AUO), [*] (Samsung), [*] and [*] (LPL), [*] (CMO) [*] (CPT)²³⁸ and [*] (Hannstar).²³⁹ The meeting is also confirmed by a Crystal Meeting report submitted by [*].²⁴⁰ The report presents the position of all participant competitors on future prices, internal capacity allocation, capacity expansion and sales targets. Concerning prices it reads as follows: "[*] MNT: 15" price increase to \$[*]; 17" price increase to \$[*]; 19" price increase to \$[*] (TN, 8ms) [*] [...] Price MNT: 15": \$[*], try to increase \$[*] in July; 17": \$[*], try to increase, but not successful; 19":\$[*], 4ms (overdrive cost \$[*] more) NB: All the size of panel increases \$[*]. 15.4": \$[*]+ \$[*] in July (will increase again in Aug.)[...] 15": \$[*] (will EOL soon)[...] [*] Panel Price: 17":\$[*]; 19":\$[*] (8 ms); 19":\$[*] (12 ms); Market people said [*]'s 19": \$[*] (down grad, warranty 30 days), but [*] denied and stated all of 19" price for international customers is over \$[*][*]: Price: MNT: Plan to raise price for 17" in August, but keep 19" price flat. 17": \$[*] (for [*] include rebate); 19" TN: \$[*]; 19" VA: \$[*]; NB: Plan to raise price in August. 15": \$[*]; 15.4":\$[*]; TV: panel price will not decline in 3Q, but in 4Q.
208. Certain figures of [*] appear to be the same in [*]'s notes taken during the vender meeting of July 2005. The notes on [*] for instance are as follows (see also recital 207): "[*] NB limited Capa. ↑ \$[*]; MTR 15"↑\$[*] \$[*]; 17" ↑ [*] \$[*] ceiling; 19" ↑ [*] (TN) [...] [*] 17" MTR July flat \$[*]; Aug ↑ \$[*] ceiling price".²⁴¹
209. As is clear from the comparison of the price data involved, [*] reports on the same meeting of 8 July 2005.²⁴² The notes show that the parties discussed production level, shipment data, capacity usage and capacities devoted to given panel sizes. [*] is reported to establish, similarly to what is noted in the minutes of [*], that "the demand for TV is becoming stronger", however as compared to that it is more precise on price increase indicating that "20" has more room for price increases" and only "the rest stayed level". [*]'s note complements the report of [*], indicating the position of that company, missing from its own notes. It therefore shows that [*] stated that "the NB market demand has improved. In July, the prices for 15"/15.4"W increased by \$[*]. FPM - 17" \$ [*], 19" \$ [*] (TN/8ms). Selling price stayed level. TV-32" \$[*]". Concerning [*] the report clarifies that in fact "the price for 17" increased to \$[*]" and the USD [*] price indicated in the minutes of [*] relate

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exclusively to [*]. Otherwise it confirms the prices indicated in the minutes of [*]. The notes end with a table indicating the participants' current prices for monitor and panels and 32" TV panel prices for [*] and [*].

210. On 4 August 2005, a Crystal Meeting took place. This is evidenced by an internal e-mail from [*] ([*]) sent to [*] ([*]) on 8 August 2005 and forwarded to [*] ([*]) on 11 August 2005.²⁴³ Participants were AUO ([*]), CMO ([*]), CPT ([*]), Hannstar ([*]), Samsung ([*]) and LPL ([*]). The e-mail contains a report by [*] of the discussions during the meeting. The e-mail forwarded to [*] reads as follows: *"For your information, attached is the industry meeting report that Vera drafted. The size of the meetings is being cut down and the meeting is being conducted with a focus on working level employees. Due to the characteristic of the meeting, as before, will continue to keep the existence of the meeting confidential"*. As regards the e-mail from [*], it presents the position of each participant, showing detailed discussion on capacity allocation, fab loading, total output and capacity, capacity expansion plans, input shortage issues, pricing and pricing intentions. The following was noted down from the discussion on pricing: *"[*] Price MNT: 15": \$[*], increase \$[*] in August; 17":\$[*], increase \$[*]; 19":\$[*], 12ms, (overdrive cost \$[*] more) NB: Supply is tight in July. 12.1 W: \$[*]; 15.4": \$[*] increase in Aug. 14" (4.3):\$ [*]; 14"W: \$[*] (produce in Gen. 4); 15": \$[*] [...] [*]: Panel price: 17":\$[*]; 19":\$[*] (8ms) in July, \$[*] in August; 19": \$[*] (12 ms) in July, \$[*] in August [...][*]: Price: TV: panel price will not decline in 3Q, but in 4Q. 32": \$[*] in August and \$[*] in year-end; 40":\$[*] in August and \$ [*] in year-end"*. The meeting is confirmed by [*]²⁴⁴
211. [*] also submits [*]'s notes for the vender meeting that took place in August 2005.²⁴⁵ The notes present detailed data on volume and prices of each of the competitors and correspond to some of the data presented by the e-mail from [*] above (see recital 210).
212. [*] also provides an internal e-mail dated 26 August 2005 from [*] to [*], entitled *"marketing report '05 Aug24"*.²⁴⁶ The attachment to the e-mail reads as follows: *"According to updated [*] internal information, MNT demand in Sep is still strong same with Aug. In 19", they think demand in Q4 can be the same with Q3 due to [*] reduction in 19" output and extra new year demand in China. So they try to keep or just a little bit drop in Sep pricing. In 17", the price around the average will most be kept and raise the lower price to the average in Sep."*
213. [*] provides an internal e-mail dated 2 September 2005 from [*] to [*].²⁴⁷ The e-mail concerns a phone call with [*] concerning [*] September pricing. In the relevant part, the e-mail reads as follows: *"The following is what we agreed upon in a phone conversation. (estimates)[...] [*]'s projected estimates (August)15.0: [*] at \$[*] (\$[*], September); 17.0: [*] at \$[*] (\$[*], September no less than \$[*]); 19.0: [*] at \$[*] (stay, September might reduce \$[*]); 20.1: [*] at \$[*] (stay for September);*

²⁴³ [*]

²⁴⁴ [*]specifies that a meeting took place in the Rose Garden Café, Taipei. [*] also submits a document showing that business expenses were incurred for a meeting on 4 August 2005 ([*]).

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23W: [*] at \$[*] (stay but probably reduce) A's projected estimates (price only) 17.0: \$[*] (August), suggested \$[*] (September); 19.0 (TN): \$[*] (August), September stay; 19.0 (MVA): \$[*] (August), September stay; These are the numbers we project. The DOJ is vigilant for any suspicious acts, so you must never spread this information and source to others".

214. On 6 September 2005, a Crystal Meeting took place in the Rose Garden Café, Taipei. This is evidenced by an internal e-mail from [*] ([*]) sent to [*] and [*] ([*]) on 7 September 2005 and forwarded by [*] ([*]) to [*] ([*]) and [*] ([*]) on 9 September 2005.²⁴⁸ Participants were AUO ([*]), CMO ([*]), CPT ([*]), Hannstar ([*]), Samsung ([*]) and LPL ([*]). The e-mail from [*] presents the minutes of the Crystal Meeting in September 2005. The minutes show detailed discussion on capacity allocation, fab loading, total output and capacity, capacity expansion plans, input shortage issues, pricing, pricing intentions and expectations. In the relevant passages, the following is written: "[*] Price: NB: Average price increase \$[*]; 15.4": \$[*] (Aug), try to increase \$[*] in September; TV: >30" remain flat in August; <30" increase a bit [*]; Price MNT: 15": \$[*], increase \$[*] in August; 17": \$[*], increase \$[*] NB: [...] 12.1W: \$[*]; 15.4": \$[*]; 14"(4:3): \$ [*]; 14"W: \$ [*] (produce in Gen.4); 15": \$[*]; TV: 32": \$[*] (Gen. 4.5 & Gen. 6); Customer: [*] etc.[...] [*] PriceTV: panel price will not decline in 3Q, but in 4Q. 23": \$[*] in September; 32": \$[*] in September (for [*]), and project to be \$[*] in year-end; 40": \$[*] in September, and project to be \$[*] in year-end; [*] design-in 40" of [*] panel; NB: 14.1" \$[*]; 14W \$[*]; 15" \$[*]; 17W \$[*]; MNT: 17" \$[*]; 19" \$[*] (TN) \$[*] (VA)". The e-mail also presents two tables on global demand forecast for 2006 and on panel makers' sales target for 2005-2006 for NBs, MNTs and TVs concerning [*]. The meeting is confirmed by [*].²⁴⁹
215. [*] also confirms the meeting of 6 September 2005, at the Rose Garden Café. [*] provides copies of the business cards of certain participants at the meeting as well as [*]'s notes on the meeting. The notes largely correspond to the data contained in the minutes of [*] concerning the meeting (see recital 214).²⁵⁰
216. [*] also submits [*]'s notes for the vender meeting that took place in September 2005.²⁵¹ The notes present detailed data on volume and prices of each of the competitors and correspond to some of the data presented by the e-mail of [*] above (recital 214). The notes also present the prices of [*] for the month of September 2005.
217. On 6 October 2005, a Crystal Meeting took place. This is evidenced in a meeting report (most probably drafted by [*] — see recital 212) submitted by [*].²⁵² Participants were AUO ([*]), CMO ([*]), CPT ([*]), Hannstar ([*]), Samsung ([*]) and LPL ([*]). The minutes show detailed discussion on capacity allocation, fab loading, total output and capacity, capacity expansion plans, input shortage issues,

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[*] also submits a document showing that business expenses were incurred for a meeting on 6 September 2005, [*]

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pricing, pricing intentions and expectations. In the relevant passages, the minutes convey the following: "[*]: [...] Price: 19W: \$[*] (19W price \$[*] less than 19") [...] [*]: [...] Price: MNT: 15": \$[*], increase \$[*] in August; 17": \$[*], decrease \$[*]; NB: 15.4": \$[*] (150 nits); 15.4": \$[*] (220 nits); Keep increase \$[*] for 15.4" in November; TV: 32": \$[*]; Customer: [*], China local makers...etc.[...] [*]: [...] 19" Price: [*]: \$[*] (12 ms); [*]: \$[*] (8 ms); [*] (8ms); 2006 price forecast: 19" could be \$[*]; 17" could be \$[*]; 15" could be below \$[*] [...] [*]: Price: TV: panel price will not decline in 3Q, but in 4Q. 32": \$[*] in Oct; 40": \$[*] in Oct; [*] design-in 40" of [*] panel; NB: ASP \$[*]" (non-glare): \$[*]; 15.4" (glare): \$[*]; MNT: 17" and 19" shipment decrease in September; 17": \$[*]; 19": \$[*] (TN) \$[*] (VA); 20" (4:3): \$[*]; 20"W: \$ [*]; 21"W: \$[*] [...]". The report also contains two tables on global demand forecast for 2006 and on panel makers' sales target for 2005-2006 for notebooks, monitors and TVs concerning [*]. The meeting is confirmed by [*].²⁵³

218. [*] also submitted its notes taken at the 6 October 2005 meeting. The note contains a table comparing production plans for year 2005 and 2006 for NB, FPM and TV panels. A second table contains detailed production plans for FPM marker for eight different panel sizes for October. [*] is reported to state that *"G5 share's production capacity (originally 17") is switched to produce TV and NB"*. Similarly, [*] reports that *"MNT had a decrease of more than [*] in November comparing to October, mainly was because of switching to production of TV."* [*] and [*] also report about capacity reallocation. The note ends with a table presenting the prices charged by the participants for different panels²⁵⁴ for [*],[*] The price differences, with one exception are USD [*] or less.²⁵⁵ [*] also confirms the meeting of 6 October 2005, at the Rose Garden Café. [*] provides copies of the business cards of certain participants at the meeting as well as [*]'s notes on the meeting.²⁵⁶
219. [*] also submits [*]'s notes for the vender meeting that took place in October 2005.²⁵⁷ The notes contain some data corresponding to those contained in [*]'s minutes of that meeting (see recital 217).
220. [*] submits²⁵⁸ that on 4 November 2005, an operational meeting took place at the Rose House Café, Taipei. Attendees were CMO ([*]), CPT ([*]), HSD ([*]), SS ([*]) and LPL ([*]).[*]'s evidence consists of a meeting report (most probably drafted by [*]). The report presents [*]'s volumes and capacities for TVs, MNTs and NBs. It presents [*]'s prices for different sizes of MNTs, TVs and NBs indicating that it intends to *"keep increase \$[*] for 15.4" in November"*. It also refers to [*] 2006 price forecasts noting that concerning its 19"W products *"price strategy will follow [*]'s 19W"*. The minutes also present [*] prices for TVs, NBs and MNTs for November.

²⁵³ [*] states that a meeting took place on 6 October 2005 in the Rose Garden Café, Taipei. [*] also submits a document showing that business expenses were incurred for a meeting on 6 October 2005.

²⁵⁴ 15", 17", 17"VA, 17"TN, 19", 19"VA, 19"TN, 20"VA, 20"UXGA, 20"W, 20.1"W, 21", 23"W, 24"W

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221. [*] also submits [*]'s notes for the vender meeting that took place in November 2005.²⁵⁹ The notes contain figures concerning [*]. Some of the data correspond to those contained in [*]'s minutes of that meeting (recital 220).
222. On 6 December 2005, a Crystal Meeting took place. This is evidenced in a meeting report (most probably drafted by [*]) submitted by [*].²⁶⁰ According to the report, attendees were AUO ([*]), CMO ([*]), CPT ([*]), HSD ([*]), SS ([*]) and LPL ([*]). The minutes show detailed discussion on capacity allocation, fab loading, fab status, total output and capacity, capacity expansion plans and input shortage issues. In the relevant passages, the minutes convey the following concerning prices: " [*]: *19"W monitor Market respond is very good. Price is \$[*]. Customer: [*] ([*], [*]),[*] [...][*]: [...] 19"W [...]; Price strategy will follow [*]*".
223. [*] also submitted a note on the 6 December meeting prepared on the following day. According to the notes the parties discussed production and sales status for October and November, with a special focus on TV panels. Fab capacities were also discussed, and the note contains a detailed table on the monthly input status for new generation line for each panel maker until March 2006. [*] is reported to state that *"G5 share's production capacity (originally 17") is switched to produce TV and NB"*. Similarly, [*] reports that *"MNT had a decrease of more than [*] in November comparing to October, mainly was because of switching to production of TV."* [*] and [*] also report about capacity reallocation.²⁶¹ The meeting is confirmed by [*].²⁶²

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224. According to [*], on 6 January 2006, an operational meeting took place. Participants were Samsung ([*]) AUO ([*]), LG ([*]), CMO ([*]), CPT ([*]) and Hannstar ([*]).²⁶³ The location of the meeting was the Tsun-Shue Tang Teahouse in Taipei, Taiwan.
225. [*] also submitted the minutes of a meeting that took place in January 2006.²⁶⁴ The participants coincide with those submitted by [*] (Samsung Taiwan, AUO, CMO, CPT, HSD and LPL). The minutes report on discussions on market strategy, shipment plans, prices and future prices. As regards prices, the minutes read: "[*]: [...] [...] Put 19W price closed to [*]'s, \$[*], but the rumor of '\$[*]' quotation is wrong.[...] 2. [*] [...] 5) Short-term market view [...] – Considering 19W as [*] push 19W market with low price 3. [*] [...] 5) Short-term market view [...] -Reference price for 22W MNT(TN) is \$[*] and 19W is \$[*] 4. [*] [...] 5) Short-term market view [...] Target price of 20W(TN) is \$[*] in Jan and finally plan of +\$[*] gap against 19W 5. [*] [...] 5) Short-term market view [...] – For 19W(5ms), [*] is

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[*] states that its statement is based on [*] memory. [*] also submits a document showing that business expenses were incurred for a meeting on 6 December 2005, [*]. According to [*], the attendees were [*] and [*] (AUO), [*] (Samsung), [*] (LPL), [*] and [*] (CMO), [*] and [*] (CPT), [*] and [*] (Hannstar). The meeting took place in the Gan-Du Yuan Tea House, Taipei.

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following [] or even sacrifice". A table is attached to the minutes, concerning the December shipment result in very detailed figures for the six competitors for various models of TV, MNT, NBPC and for the months of November, December and January. With regard to the vendor meeting in January 2006, [*] submits the contemporaneous notes of [*].²⁶⁵ The notes show discussion on financial results, target prices, sales targets, optimal price difference between product categories and pricing strategies. [*] is noted to state that concerning 19"W there is "no need to have price battle".*

226. [*] also confirms the meeting submitting the notes taken by its employees.²⁶⁶ The notes start with a table containing output information of the other companies for panels of size between 15" and 27"W. According to the notes the parties shared information on capacity and capacity planning and price strategy in terms of price difference to be kept between different panel sizes. The notes contain another table as well, indicating prices charged in January for different panel sizes between 15" and 30"W by the other participants for [*] and [*]. The table is supplemented with the following remarks: "*[[*]] price to [*] has already deducted a [*] rebate amount. [*] operates with actual prices/invoice prices, which was also direct purchase. [[*]'s price to [*] for January has yet to be discussed. Will first make the delivery using the price of December, and then will adjust the amount back to make up for the price differences by the end of the month. [*]'s 17" price to [*] was an interim price, which had been discussed at the beginning of the month in Korea; the final price will be further discussed and resolved at the end of the month.*"
227. Similarly as in recital 225, [*] submitted a note containing the February 2006 summary of information with respect to competitors.²⁶⁷ As also in recital 225, the note refers to the shipment results in January 2006, capacities, inventories, pricing and customers covering TVs, MNTs and NBPCs for [*]. On several occasions, the note makes reference to cost levels, plans on future capacity increase and capacity allocation. The parties also discussed expected demand for certain products. As [*] confirmed in its reply to a request for information of 2 April 2007, the last multilateral meeting took place in February 2006.²⁶⁸ The document referred to is without doubt the minutes of that meeting.

5. APPLICATION OF ARTICLE 101 OF THE TREATY AND ARTICLE 53 OF THE EEA AGREEMENT

5.1. Relationship between the Treaty and the EEA Agreement

228. The arrangements described in Section 4 applied at world-wide level covering thus the entire EEA territory. They were therefore liable to affect competition in the whole of the internal market and the territory covered by the EEA Agreement.

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229. Insofar as the arrangements affected competition in the internal market and trade between Member States, Article 101 of the Treaty is applicable. Article 53 of the EEA Agreement is applicable insofar as the arrangements affected competition in the territory covered by that Agreement and trade between the Contracting Parties to that Agreement.

5.2. Jurisdiction

5.2.1. Jurisdiction over undertakings outside the Union

230. The application by the Union of its competition rules is governed by the territoriality principle as universally recognised principle of international law. In this respect, the Court of Justice established in the *Woodpulp* case that the decisive factor in the determination of the applicability of Article 101 of the Treaty in cases where the participants of a cartel are seated outside the Union is whether the agreement, decision or concerted practice was implemented within the Union.²⁶⁹ More specifically, the Court of Justice observed in that case that the producers were selling directly into the Union and were engaging in price competition in order to win orders from the customers, thereby constituting competition within the Union. Therefore, stated the Court of Justice, where those producers concert on the prices to be charged to their customers in the Union and put that concertation into effect by selling at prices which are actually coordinated, they are taking part in a concertation which has the object and effect of restricting competition within the internal market within the meaning of Article 101 of the Treaty.²⁷⁰ The Court of Justice also stated that an infringement of Article 101, such as the conclusion of an agreement which has had the effect of restricting competition within the internal market, consists of conduct made up of two elements: the formation of the agreement, decision or concerted practice and the implementation thereof. If the applicability of the prohibitions laid down under Union competition law were made to depend on the place where the agreement, decision or concerted practice was formed, the result would be to give undertakings an easy means of evading those prohibitions. The decisive factor is therefore the place where the agreement, decision or concerted practice is implemented.²⁷¹ Accordingly, the jurisdiction of the Union to apply its competition rules to such conduct is covered by the territoriality principle.²⁷²
231. The General Court supplemented that test by establishing that the rules of Union competition law (in that case, Council Regulation (EEC) No 4064/89 of 21 December 1989 on the control of concentrations between undertakings²⁷³, the first Merger Regulation) are applicable if the conduct at issue has immediate, foreseeable and substantial effect in the Union.²⁷⁴

²⁶⁹ Joined Cases 89/85, 104/85, 114/85, 116/85, 117/85, and 125 to 129/85, *Ahlström Osakeyhtiö and others v Commission* ('Woodpulp I') [1988] ECR I-5193.

²⁷⁰ *Ibid.*, paragraph 13.

²⁷¹ *Ibid.*, paragraph 16.

²⁷² *Ibid.*, paragraph 18.

²⁷³ OJ L 395, 30.12.1989, p. 1.

²⁷⁴ Case T-102/96, *Gencor Ltd v Commission* [1999] ECR II-753, paragraph 90.

5.2.2. *Arguments of the parties*

232. AUO submits that the Commission should have established that the alleged agreement had an effect on sales to direct customers established in the Community and that those effects were substantial, immediate and foreseeable. In this respect, the Commission should disregard panels of the size of 10.4" and below, sales to non key customers, "captive" sales and sales among participating undertakings, sales to new Member States before their accession and sales to European destinations when the price negotiation took place with a non-European customer, if the seller did not know the final destination. It argues that it might not be possible to establish Union jurisdiction for the whole period of the infringement, that is when effects on the EEA market became substantial, foreseeable and immediate. It claims that in determining the existence of its jurisdiction, the Commission should have had regard to the fact that even in 2002 AUO sales to the EEA amounted to less than 1% of its total world-wide sales. Finally it claims that the Commission should have observed the principle of international comity which requires to refrain from applying domestic laws when doing so would impinge on the territorial sovereignty of another state.²⁷⁵
233. CMO claims the lack of sufficient nexus with Europe, as the Commission did not identify European customers, it did not establish that prices were directly negotiated with these customers or that those customers made their purchasing decisions in Europe and that prices were different in Europe than for other customers in the world. It also denies that competitor contacts would have taken place in Europe. CMO also states that the Commission failed to apply the implementation test deriving from the *Woodpulp* case. Even the less strict test advocated by Advocate General Darmon and endorsed by the General Court in *Gencor* for merger cases would not be met as no direct, foreseeable and substantial effects were shown in the SO. It claims that the Commission did not show that the agreement was implemented in the EEA and provides no factual basis for its alleged effects on the EEA.²⁷⁶
234. According to LPL, the SO did not clearly show that the implementation or the effect criteria were met and it points to characteristics of the market which, in its view, show that the agreement was not and could not have been implemented in the Union. It states that the Commission should apply the international legal principle of comity. It refers to the Recommendation of the Council of the OECD Concerning Co-operation between Member Countries on Anti-competitive Practices Affecting International Trade of July 1995 (1995 OECD recommendation),²⁷⁷ and *inter alia* the cooperation agreement concluded between the Union and the Republic of Korea concerning cooperation on anti-competitive activities (EU-Korea agreement).²⁷⁸ It states that the Commission should consult with other regulatory authorities to determine whether it is the best-placed authority to investigate the case.²⁷⁹

²⁷⁵ ID 2084, pp. 35-38.

²⁷⁶ ID 2062, pp. 25-29.

²⁷⁷ C (95) 130/Final.

²⁷⁸ Agreement between the European Community and the Government of the Republic of Korea concerning cooperation on anti-competitive activities, OJ L 202, 4.8.2009, p. 36.

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5.2.3. *Application in this case*

235. In this case, it can be established that the agreements related to the world-wide sales of the LCD panels, without geographical limitations, affecting prices globally. This is clear from the fact that in most cases no such limitations were applied by the parties during their discussions on panel types and sizes in general. The existence of a global market and global discussions is also explicitly confirmed by [*] and [*], while [*] do not deny that factual statement in the SO.²⁸⁰ It was also shown in Section 4 that when the discussions related to specific customers, those customers were from different parts of the world, including Europe, or were themselves global customers (see recitals 107, 115, 124, 154, 168, 187, 192, 200, 214, 217, 218, 222 and 226). Within the global framework, the agreement therefore also related to direct sales of panels to undertakings seated in the EEA. As is clear from recitals 43, 51 and 52, Europe was also targeted by substantial Indirect Sales (in the sense of recital 51), in which the parties had a very high joint market share.
236. In line with the criteria set by the Court of Justice in the *Woodpulp* case, the Commission has jurisdiction to establish an infringement in this case where LCD suppliers established in third countries concerted on the prices to be charged to their customers in the EEA and put that concertation into effect by selling to those customers at prices which were actually coordinated. Even if the cartel arrangements were formed outside the EEA, the cartel participants, through their direct sales into the EEA, implemented their agreements and concerted practices within such geographic area.
237. Even if it might be true that the main focus of the agreement was not Europe, as no specific area of the world was particularly focused upon, contemporaneous evidence shows that beside explicitly discussing some of their main customers in Europe such as [*], the parties were analysing and referring to the effects of the implemented agreement on the European market and therefore sought their agreement to be implemented and have effects also within the EEA (see for example recital 94). That implementation took place through the direct sales of LCD panels and of transformed products in the EEA (that is, the Direct EEA Sales and the Direct EEA Sales Through Transformed Products), even if the negotiation of the price took place outside the EEA.
238. Based on the sale of the LCD panels to the EEA in the form of Direct EEA Sales and Direct EEA Sales Through Transformed Products, it can thus also be established that the infringement had foreseeable, immediate and substantial effect in the Union in the sense of the *Gencor* case law.²⁸¹ First, the infringement immediately affected the EEA market since the agreements and concerted practices directly influenced the setting of price for LCD panels delivered directly or through transformed products to European customers. In this case the effects on the market of the price fixing agreements have been even more immediate as the monthly fixing of prices were prone to result in effects within a month or, at the latest, with the selling out of existing customer stocks. Secondly, the effect on the European market was

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Case T-102/96, paragraph 90.

foreseeable as the price rise or the maintenance of higher prices and the reduction of output were to have evident consequences on the conditions of competition at the downstream level for all IT and TV applications. Since the undertakings participated in a global cartel with which they intended to cover customers in Europe and which was implemented through direct sales of LCD panels and transformed products in the EEA, it is irrelevant whether the suppliers knew of the destination of specific orders, whether sales into the EEA were made to key customers actually named during the cartel meetings or whether the price negotiations with individual customers took place within or outside the EEA. The immediate and foreseeable effect on the EEA market were also present in the case of integrated suppliers like Samsung. As confirmed by the General Court in *Cartonboard*, even if the higher price resulting from a cartel is not always or not in its entirety passed on to intra-group customers, the competitive advantage deriving from this positive discrimination does foreseeably influence competition on the market.²⁸² Intra-group sales of LCD panels – in as far as they ended up into transformed products sold in the EEA - are therefore to be taken into account, just like intra-cartel sales in the EEA. Finally, the effect of the agreement were substantial due to the seriousness of the infringement, its long duration and the role of the parties on the European market for final and intermediate products. In this assessment sales of panels of non-IT or TV application and sales outside the EEA are not involved.

239. As to AUO's argument concerning the low level of EEA sales as compared to its overall sales in the first years of the infringement, it should be noted that, for the purpose of establishing jurisdiction, all that matters is whether the cartel as a whole was implemented and had immediate, foreseeable and substantial effects in the EEA. It is irrelevant whether those effects were limited for a given party, in a given period of time, as compared to the world-wide effects of the cartel. In any event, Section 2.2 shows that the parties had significant Direct EEA Sales and Direct EEA Sales Through Transformed Products.
240. Concerning the arguments of AUO and LPL on the issue of international comity, the procedure of the Commission is by no means in breach of the obligations deriving from the international law principle of comity, or of the different agreements enumerated by LPL or the 1995 OECD recommendation. The Korean competition authority was duly consulted during the administrative procedure and did not claim that any of the important interests mentioned in Article 5 of the EU-Korea agreement was affected. Moreover, both the 1995 OECD recommendation and the EU-Korea agreement emphasise the competition authorities' full freedom to adopt decisions in competition cases within their jurisdiction.
241. Though the parties do not clearly specify how international comity would be affected by this decision, both the establishment of jurisdiction and the determination of the fine are based on the implementation and effects of the infringement within the EEA. As the General Court has confirmed in the *Tokai Carbon* case, the assessment of a

²⁸² Case T-304/94, *Europa Carton AG v Commission* [1998] ECR 869, paragraphs 111-131.

cartel's application and effects within the EEA clearly belongs to the jurisdiction of the Commission.²⁸³

242. Concerning the argument of AUO that jurisdiction might not be established from the very beginning of the infringement, it should first be noted that the parties, including AUO, had direct sales in the EEA as of October 2001 and that AUO has provided no argument to put into doubt the world-wide scope of the cartel as of October 2001.

243. In conclusion, the Commission has jurisdiction to apply both Article 101 of the Treaty and Article 53 of the EEA Agreement (on the basis of Article 56 of the EEA Agreement) to this case.

5.3. Application of Article 101(1) of the Treaty and Article 53(1) of the EEA Agreement

244. Article 101(1) of the Treaty prohibits as incompatible with the internal market all agreements between undertakings or concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market, and in particular those which directly or indirectly fix purchase or selling prices or any other trading conditions, limit or control production and markets, or share markets or sources of supply.

245. Article 53(1) of the EEA Agreement (which is modelled on Article 101(1) of the Treaty) contains a similar prohibition. However the reference in Article 101(1) to trade “between Member States” is replaced by a reference to trade “between contracting parties” and the reference to competition “within the internal market” is replaced by a reference to competition “within the territory covered by the ... [EEA] Agreement”.

5.3.1. Agreements and concerted practices

5.3.1.1. Principles

246. Article 101(1) the Treaty and Article 53(1) of the EEA prohibit, among others, *agreements* between undertakings and *concerted practices*. An *agreement* can be said to exist when the parties adhere to a common plan which limits or is likely to limit their individual commercial conduct by determining the lines of their mutual action or abstention from action in the market. It does not have to be made in writing. No formalities are necessary, and no contractual sanctions or enforcement measures are required. The fact of agreement may be express or implicit in the behaviour of the parties. Furthermore, it is not necessary, in order for there to be an infringement of Article 101 of the Treaty, for the participants to have agreed in advance upon a comprehensive common plan. The concept of *agreement* in Article 101(1) of the

²⁸³ Case T-236/01, T-239/01, T-244/01/ T-246/01, T-251/01 and T-252/01, *Tokai Carbon and others v Commission* [2004] ECR II-1181, paragraph 143.

Treaty would apply to the inchoate understandings and partial and conditional agreements in the bargaining process which lead up to the definitive agreement.²⁸⁴

247. In its judgment in the *PVC II* case²⁸⁵, the General Court stated that “*it is well established in the case law that for there to be an agreement within the meaning of Article [101(1) EC] of the Treaty it is sufficient for the undertakings to have expressed their joint intention to behave on the market in a certain way.*”²⁸⁶
248. Although Article 101(1) of the Treaty and Article 53(1) of the EEA Agreement draw a distinction between the concept of “*concerted practices*” and “*agreements between undertakings*”, the object is to bring within the prohibition of those articles a form of co-ordination between undertakings by which, without having reached the stage where an agreement properly so-called has been concluded, they knowingly substitute practical co-operation between them for the risks of competition.²⁸⁷
249. The criteria of co-ordination and co-operation laid down by the case law of the Courts of the Union, far from requiring the elaboration of an actual plan, must be understood in the light of the concept inherent in the provisions of the Treaty relating to competition, according to which each economic operator must determine independently the commercial policy which it intends to adopt in the internal market. Although that requirement of independence does not deprive undertakings of the right to adapt themselves intelligently to the existing or anticipated conduct of their competitors, it strictly precludes any direct or indirect contact between such operators the object or effect of which whereof is either to influence the conduct on the market of an actual or potential competitor or to disclose to such a competitor the course of conduct which they themselves have decided to adopt or contemplate adopting on the market.²⁸⁸
250. While it is correct to say that the requirement of independence does not deprive economic operators of the right to adapt themselves intelligently to the existing or anticipated conduct of their competitors, it does, none the less, strictly preclude any direct or indirect contact between such operators by which an undertaking may influence the conduct on the market of its actual or potential competitors or disclose to them its decisions or intentions concerning its own conduct on the market where the object or effect of such contact is to create conditions of competition which do not correspond to the normal conditions of the market in question, regard being had

²⁸⁴ Case T-9/99, *HFB and others v. Commission* [1999] ECR II-1487, paragraphs 196 and 207.

²⁸⁵ Joined Cases T-305/94 etc., *Limburgse Vinyl Maatschappij N.V. and others v Commission* (PVC II) [1999] ECR II-931, paragraph 715.

²⁸⁶ The case law of the Court of Justice and the General Court in relation to the interpretation of Article 101 of the Treaty applies equally to Article 53 of the EEA Agreement. See paragraphs No 4 and 15 as well as Article 6 of the EEA Agreement, Article 3(2) of the Agreement between the EFTA States on the establishment of a surveillance authority and a Court of Justice, as well as Case E-1/94 of 16.12.1994, paragraphs 32-35. References in this Decision to Article 101 of the Treaty therefore apply also to Article 53 EEA.

²⁸⁷ Case 48/69, *Imperial Chemical Industries v Commission* [1972] ECR 619, paragraph 64.

²⁸⁸ Joined Cases 40 to 48, 50, 54 to 56, 111, 113 and 114/73, *Suiker Unie and others v Commission* [1975] ECR 1663, paragraphs 173 and 174.

to the nature of the products or services offered, the size and number of the undertakings involved and the volume of that market.²⁸⁹

251. Thus, conduct may fall under Article 101(1) of the Treaty as a *concerted practice* even where the parties have not explicitly subscribed to a common plan defining their action in the market but knowingly adopt or adhere to collusive devices which facilitate the co-ordination of their commercial behaviour.²⁹⁰ Furthermore, the process of negotiation and preparation culminating effectively in the adoption of an overall plan to regulate the market may well also (depending on the circumstances) be correctly characterised as a concerted practice.
252. Although in terms of Article 101(1) of the Treaty the concept of a concerted practice requires not only concertation but also conduct on the market resulting from the concertation and having a causal connection with it, it may be presumed, subject to proof to the contrary, that undertakings taking part in such a concertation and remaining active in the market will take account of the information exchanged with competitors in determining their own conduct on the market, all the more so when the concertation occurs on a regular basis and over a long period. Such a concerted practice is caught by Article 101(1) of the Treaty even in the absence of anti-competitive effects on the market.²⁹¹
253. Moreover, it is established case law that the exchange, between undertakings, in pursuance of a cartel falling under Article 101(1) of the Treaty, of information concerning their respective deliveries, which not only covers deliveries already made but is intended to facilitate constant monitoring of current deliveries in order to ensure that the cartel is sufficiently effective, constitutes a concerted practice within the meaning of that article.²⁹²
254. In the case of a *complex infringement* of long duration, it is not necessary for the Commission to characterise the conduct as exclusively one or other of those forms of illegal behaviour. The concepts of agreement and concerted practice are fluid and may overlap. The anti-competitive behaviour may well be varied from time to time, or its mechanisms adapted or strengthened to take account of new developments. Indeed, it may not even be possible to make such a distinction, as an infringement may present simultaneously the characteristics of each form of prohibited conduct, while when considered in isolation some of its manifestations could accurately be described as one rather than the other. It would, however, be artificial analytically to sub-divide what is clearly a continuing common enterprise having one and the same overall objective into several different forms of infringement. A cartel may therefore be an agreement and a concerted practice at the same time. Article 101 of the Treaty

²⁸⁹ Case C-8/08, *T-Mobile Netherlands and Others* [2009] ECR I-4529, paragraph 33.

²⁹⁰ See also Case T-7/89, *Hercules v Commission* [1991] ECR II-1711, paragraphs 255-261.

²⁹¹ See also Case C-199/92 P, *Hüls v Commission*, [1999] ECR I-4287, paragraphs 158-167, Case C-8/08, *T-Mobile Netherlands and others*, [2009] ECR I-4529 paragraph 51.

²⁹² See Case T-147/89, *Société Métallurgique de Normandie v Commission* [1995] ECR II-1057 paragraph 3, Case T-148/89, *Trefilunion v Commission* [1995] ECR II-1063, paragraph 72 and Case T-151/89, *Société des treillis et panneaux soudés v Commission* [1995] ECR II-1191, paragraph 3.

lays down no specific category for a complex infringement of the type involved in this case.²⁹³

255. In its judgement in *PVC II*,²⁹⁴ the General Court stated that “[i]n the context of a complex infringement which involves many producers seeking over a number of years to regulate the market between them, the Commission cannot be expected to classify the infringement precisely, for each undertaking and for any given moment, as in any event both those forms of infringement are covered by Article [101 of the Treaty]”.
256. An agreement for the purposes of Article 101(1) of the Treaty does not require the same certainty as would be necessary for the enforcement of a commercial contract at civil law. Moreover, in the case of a complex cartel of long duration, the term “agreement” can properly be applied not only to any overall plan or to the terms expressly agreed but also to the implementation of what has been agreed on the basis of the same mechanisms and in pursuance of the same common purpose. As the Court of Justice has pointed out, it follows from the express terms of Article 101(1) of the Treaty that agreement may consist not only in an isolated act but also in a series of acts or a course of conduct.²⁹⁵
257. The organisation of meetings or providing services relating to anti-competitive arrangements²⁹⁶ may also be prohibited under certain conditions according to the case law of the General Court. The General Court states that “it is sufficient for the Commission to show that the undertaking concerned attended meetings at which anti-competitive agreements were concluded” and that “the Commission must prove that the undertaking intended, through its own conduct, to contribute to the common objectives pursued by the participants as a whole and that it was aware of the substantive conduct planned or implemented by other undertakings in pursuance of those objectives, or that it could reasonably have foreseen that conduct and that it was ready to accept the attendant risk”.²⁹⁷
258. It is also well-settled case law that “the fact that an undertaking does not abide by the outcome of meetings which have a manifestly anti-competitive purpose is not such as to relieve it of full responsibility for the fact that it participated in the cartel, if it has not publicly distanced itself from what was agreed in the meetings”.²⁹⁸ Such distancing should take the form of an announcement by the company, for instance,

²⁹³ Case T-7/89, *Hercules v Commission*, paragraph 264.

²⁹⁴ Joined Cases T-305/94, T-306/94, T-307/94, T-313/94 to T-316/94, T-318/94, T-325/94, T-328/94, T-329/94 and T-335/94, *Limburgse Vinyl Maatschappij N.V. and others v Commission* (PVC II) [1999] ECR II-931, paragraph 696.

²⁹⁵ Case C-49/92 P, *Commission v Anic Partecipazioni SpA* [1999] ECR I-4125, paragraph 81.

²⁹⁶ Such as checking deviations and monitoring compliance facilitating the implementation of the agreements.

²⁹⁷ Case T-99/04, *AC Treuhand v Commission*, [2008] ECR II-1501, paragraphs 130.

²⁹⁸ See, *inter alia*, Case T-141/89, *Tréfileurope Sales v Commission*, [1995] ECR II-791, paragraph 85; Case T-7/89, *Hercules Chemicals v Commission* [1991] ECR II-1711, paragraph 232; and Joined Cases T-25 to 26/95, T-30 to 32/95, T-34 to 39/95, T-42 to 46/95, T-48/95, T-50 to 65/95, T-68 to 71/95, T-87 to 88/95 and T-103 to 104/95, *Cimenteries CBR and Others v Commission* (“Cement”) [2000] ECR II-491, paragraph 1389.

that it will take no further part in the meetings (and therefore does not wish to be invited to them).

5.3.1.2. Arguments of the parties

259. AUO submits in its reply to the SO that the Commission does not prove that the parties actually reached an agreement while meeting and discussing prices and alleges that the agreements were not put into practice, meaning that they did not exist at all. According to AUO, suppliers viewed the meetings as an opportunity to gain an insight into market trends whilst giving very little information away. The meetings constituted one source, among many, that AUO used to gather information solely for the purpose of making informed unilateral pricing decisions. Despite the exchange of information, the parties still competed intensively. It further adds that the information exchanged was even unsuitable for an agreement on prices or output limitation. AUO also states that the evidence submitted by the immunity applicant Samsung is incompatible with a finding that there was an agreement to fix prices. It claims that LPL, the first leniency applicant has also questioned the ability of the participants to reach an agreement on prices. AUO claims that the Commission should have regard to the changing nature of the agreement as of May 2005 when CEO and managerial level meetings were replaced by the meetings of low level employees, focusing primarily on shipment information and general analysis of market conditions, that is information utterly incapable of reducing uncertainties that could potentially have affected competition. Finally it submits that evidence of effective competition on the market is incompatible with the finding of an agreement to fix prices.²⁹⁹
260. Hannstar submits that all leniency applicants made statements which contradict the conclusions drawn by the Commission and even contain internal contradictions that undermine the reliability of the contemporaneous evidence submitted by them. The objective of the meetings was only to exchange information, most of which was non-sensitive and non-confidential. It also claims that it continued normal pricing behaviour on the market.³⁰⁰

5.3.1.3. Application in this case

261. The facts described in Section 4 of this Decision demonstrate that the undertakings to which this Decision is addressed were involved in collusive activities concerning LCD panels for IT and TV applications.
262. As already indicated in recital 98, the objective of the anti-competitive arrangements was to increase and maintain prices for the LCD panels. The control of prices took place at two levels, that is, directly by agreeing on prices,³⁰¹ and indirectly by adopting a common understanding of the market situation and coordinating future market behaviour concerning the parameters which determine prices such as production, capacity, shipments and demand.

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This was achieved through price increases, price ranges, minimum and/or target prices.

263. The control of those price parameters ensured the future sustainability of the price fixing that was agreed upon in the first place. More specifically, in the course of the Crystal Meetings, the participants established a common understanding of the past, present and future situation of the market (prices, demand, production and capacity) thereby deciding together on a coordinated future pricing strategy.
264. The adoption of a common understanding on the past and present situation of the market as well as decisions on the common future strategy took place on a regular, continuous, see monthly basis. In this context, the regularity of the meetings was critical. First, in order to be able to decide on a common future pricing strategy, a continuous common understanding on the past and present market situation had to be established. Second, that regularity served as a means of monitoring compliance with all the collusive arrangements concluded.
265. The undertakings concerned thus clearly adhered to a common plan which limited their individual commercial conduct by determining the lines of their mutual action or abstention from action in the market. Their behaviour had therefore all the characteristics of an "agreement" or "concerted practice" within the meaning of Article 101(1) of the Treaty.
266. As to price fixing, the participants made agreements jointly to fix prices. They agreed upon prices in the form of price increases, price ranges and/or minimum prices, and price maintenance (see for instance recitals 76, 87, 103, 112, 113, 116, 122, 124, 128, 129, 152, 153, 155, 159, 160, 164, 167, 179 and 206).
267. As part of the collusive scheme, the participants exchanged information and adopted a common understanding on the past and present market situation as well as on a future strategy covering prices, production, shipments and production capacity (see for instance recitals 86, 120, 128, 121, 147, 164, 165, 214 and 225). The information exchanged was sufficiently accurate (see recital 182).
268. The elements of the illicit arrangement aiming at the indirect fixing of prices and harmonisation of future market conduct could aptly be characterised as a concerted practice. Through those practices and the regular and continuous meetings and other contacts, the producers in question aimed and were able to monitor output levels (capacities, capacity allocation, fab construction and planned output), the applicable prices and price parameters in order to ensure that the price fixing arrangement was adequately put into effect (see recital 264, 81, 82, 96, 104 and 105). Parties reached a common understanding of the supply and demand situation, ensuring the adjustment of market strategies. Therefore even if the concerted practice consisted solely in the exchange of information upon which the parties based their unilateral conduct as AUO claims, it could not be considered lawful.
269. Concerning the alleged change in the nature of the meetings as from May 2005, it is correct that, in reaction to a fear of being discovered (see recital 200 referring to possible customer awareness, recital 210, referring to the need to keep the meetings confidential and recital 213 referring to the Department of Justice suspicious of such anti-competitive contacts), the meetings were "downsized" and lower level employees were sent to them. It is also correct that the contemporaneous notes of the

meetings no longer contain references to explicit prices that were agreed upon by all participants for general application. However, those changes in practice do not alter the nature of the meetings as a forum for the parties to continue their agreements and/or concerted practice. First of all, the parties deemed it necessary "*due to the characteristics of the meeting, as before, [to] continue to keep their existence confidential*" (see recital 210). Secondly, the characteristics of the monthly meetings, hosted by the participants in turn, stayed in place. Thirdly, and most importantly, until February 2006 the parties continued to discuss pricing, capacities, output and other market data as before. They still shared with their competitors their future price intentions and strategy, they continued to monitor by confronting the others with 'market rumours' of lower prices for which a justification was expected (see recitals 202 and 225 for Samsung and recital 207 for Hannstar), and bilateral contacts in between the meetings continued (see recitals 201, 212 and 213).

270. Concerning the alleged lack of implementation of the cartel arrangements, the continuation of normal pricing behaviour or the presence of market conditions excluding implementation of a cartel agreement, it should be recalled, first, that according to the case law, agreements with an anti-competitive object are illegal even if they are not implemented, or applied.³⁰² Secondly, in this case the evidence shows that the parties were implementing the agreement (see recitals 91 and 92) and were closely following the other parties' implementation (see among others recitals 104, 106 and 107). In the case of Hannstar, it can be established that although its market situation sometimes did not make it possible for it to fully apply the agreement (see recital 104) it normally strived and managed to follow it (see recital 151) or provided particular reasons or excuses if it departed from it (see recitals 104, 106 and 207), it complained that others did not follow it (see recital 103) and it was actively advocating the agreement (see recitals 115 and 138).
271. Concerning the alleged incompatibility with the conclusions of the Commission and the alleged contradictory nature of the evidence submitted and the statements made by [*] as a leniency applicant, it is to be noted that [*] [*]. The evidence submitted is confirmed by contemporaneous documents of [*], as immunity applicant, and [*] also confirm the conclusions of the Commission relating to the interpretation of these documents as evidence of anti-competitive collusion.³⁰³
272. In line with the above case law mentioned at Section 5.3.1.1, the behaviour of the undertakings concerned can be characterised as a complex infringement consisting of various actions which can be classified as either an agreement or a concerted practice, within which the competitors knowingly substituted practical co-operation between them for the risks of competition. Furthermore, the undertakings participating in such concertation have taken account of the information exchanged with competitors in determining their own conduct on the market, all the more so because the multilateral and bilateral concertation continued on a regular basis for more than four years. According to the case law, such a concerted practice is caught

³⁰² Case 19/77, *Miller v Commission* [1978] ECR 131, paragraphs 7-10; and Case C-277/87, *Sandoz v Commission* [1990] ECR I-45, paragraph 3.

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by Article 101(1) of the Treaty even in the absence of anti-competitive effects on the market.

273. In conclusion, the complex of infringements in this case presents all the characteristics of an agreement and/or a concerted practice in the sense of Article 101 TFEU and Article 53 of the EEA Agreement.

5.3.2. *Single, complex and continuous infringement*

5.3.2.1. Principles

274. A complex cartel may properly be viewed as a single and continuous infringement for the time frame in which it existed. The General Court points out, *inter alia*, in the *Cement* case that the concept of 'single agreement' or 'single infringement' presupposes a complex of practices adopted by various parties in pursuit of a single anti-competitive economic aim.³⁰⁴ The agreement may well be varied from time to time, or its mechanisms adapted or strengthened to take account of new developments. The validity of the assessment is not affected by the possibility that one or more elements of a series of actions or of a continuous course of conduct could individually and in themselves constitute a violation of Article 101 of the Treaty.
275. It would be artificial to split up such continuous conduct, characterised by a single purpose, by treating it as consisting of several separate infringements, when what was involved was a single infringement which progressively would manifest itself in both agreements and concerted practices.
276. Although a cartel is a joint enterprise, each participant in the arrangement may play its own particular role. One or more may exercise a dominant role as ringleader(s). Internal conflicts and rivalries, or even cheating may even occur, but will not however prevent the arrangement from constituting an agreement/concerted practice for the purposes of Article 101 of the Treaty where there is a single common and continuing objective.
277. The mere fact that each participant in a cartel may play the role which is appropriate to its own specific circumstances does not exclude its responsibility for the infringement as a whole, including acts committed by other participants but which share the same unlawful purpose and the same anti-competitive effect. An undertaking which takes part in the common unlawful enterprise by actions which contribute to the realisation of the shared objective is equally responsible, for the whole period of its adherence to the common scheme, for the acts of the other participants pursuant to the same infringement. This is certainly the case where it is established that the undertaking in question was aware of the unlawful behaviour of

³⁰⁴ Joined Cases T-25 to 26/95, T-30 to 32/95, T-34 to 39/95, T-42 to 46/95, T-48/95, T-50 to 65/95, T-68 to 71/95, T-87 to 88/95 and T-103 to 104/95, *Cimenteries CBR and Others v Commission*, ("Cement") ECR [2000] II-491, paragraph 3699.

the other participants or could have reasonably foreseen or been aware of them and was prepared to take the risk.³⁰⁵

278. Although Article 101 of the Treaty does not refer explicitly to the concept of single and continuous infringement, it is settled case law of the Court of Justice that “*an undertaking may be held responsible for an overall cartel even though it is shown that it participated directly only in one or some of the constituent elements of that cartel, if it is shown that it knew, or must have known, that the collusion in which it participated was part of an overall plan and that the overall plan included all the constituent elements of the cartel*”.³⁰⁶
279. The fact that an undertaking concerned did not participate directly in all the constituent elements of the overall cartel cannot relieve it of responsibility for the infringement of Article 101 of the Treaty. Such a circumstance may nevertheless be taken into account when assessing the seriousness of the infringement which it is found to have committed. Such a conclusion is not at odds with the principle that responsibility for such infringements is personal in nature, nor does it neglect individual analysis of the evidence adduced, in disregard of the applicable rules of evidence, or infringe the rights of defence of the undertakings involved.
280. In fact, as the Court of Justice stated in its judgement in *Commission v Anic Partecipazioni*,³⁰⁷ the agreements and concerted practices referred to in Article 101(1) of the Treaty necessarily result from collaboration by several undertakings, who are all co-perpetrators of the infringement but whose participation can take different forms according, in particular, to the characteristics of the market concerned and the position of each undertaking on that market, the aims pursued and the means of implementation chosen or envisaged. It follows, as reiterated by the Court in the *Cement* cases, that an infringement of Article 101 may result not only from an isolated act but also from a series of acts or from a continuous conduct. That interpretation cannot be challenged on the ground that one or several elements of that series of acts or continuous conduct could also constitute in themselves and taken in isolation an infringement of Article 101 of the Treaty. When the different actions form part of an ‘overall plan’, because their identical object distorts competition within the internal market, the Commission is entitled to impute responsibility for those actions on the basis of participation in the infringement considered as a whole.³⁰⁸

³⁰⁵ Case C-49/92 P, *Commission v Anic Partecipazioni* [1999] ECR I-4125, paragraph 83.

³⁰⁶ Case T-295/94, *Buchmann v Commission* [1998] ECR II-813, paragraph 121, Case T-304/94, *Europa Carton AG v Commission* [1998] ECR II-869, paragraph 76, Case T-310/94, *Gruber + Weber v Commission* [1998] ECR II-1043, paragraph 140, Case T-311/94, *Kartonfabriek de Eendracht v Commission* [1998] ECR II-1129, paragraph 237, Case T-334/94, *Sarrió v Commission* [1998] ECR II-1439, paragraph 169, and Case T-348/94, *Enso Española v Commission* [1998] ECR II-1875, paragraph 223. See also Case T-9/99, *HFB Holding and others v Commission*, [1999] ECR II-1487, paragraph 231.

³⁰⁷ Case C-49/92 P, *Commission v Anic Partecipazioni*, [1999] ECR I-4125, paragraph 79.

³⁰⁸ Joined Cases C-204/00 P, 205/00 P, 211/00 P, 213/00 P, 217/00 P, 219/00 P, *Aalborg Portland et al.* [2004] ECR I-123, paragraph 258. See also Case C-49/92, *Commission v Anic Partecipazioni*, [1999] ECR I-4125, paragraphs 78-81, 83-85 and 203, and Case T-101/05 and 111/05, *BASF and UCB v Commission* [2007] ECR II-4949, paragraphs 159-161.

5.3.2.2. Arguments of the parties

281. CMO contends that the TV and IT segments constitute separate relevant markets and this divides the subject of the proceedings into two separate potential infringements. It states that on the TV segment no collusion amounting to an agreement took place due to the fact that meetings started affecting that segment only in late 2003 and discussions on TV panels were sporadic and superficial in nature. The parties had no incentive to collude on a dynamically developing market and differences with IT panels did not lend them for joint discussion on the same forum. Moreover, the SO did not reflect the attendance of personnel in charge of that segment and leading TV suppliers were not present at the meetings, while some companies present had virtually no TV production.³⁰⁹ Together with AUO, CMO also submits that the supplementary evidence provided by [*] after the SO does not merely corroborate the evidence included in the SO as the meetings to which it refers were not included in the SO. It therefore claims that those pieces of evidence cannot be taken into account.³¹⁰

282. It is also appropriate to recall here the claim of AUO presented at recital 259 according to which the Commission should have regard to the change in nature of the agreement as from May 2005.³¹¹

5.3.2.3. Application in this case

283. In this case, the conduct in question constitutes one single, complex and continuous infringement of Article 101 of the Treaty and Article 53 of the EEA Agreement. The participating undertakings, Samsung, LPL, AUO, CMO, CPT and Hannstar engaged in a single, complex and continuous cartel infringement in respect of LCD panels for IT and TV applications by a series of linked and interacting efforts that lasted from 5 October 2001 until February 2006, with the objective of increasing and maintaining prices of LCD panels for IT and TV applications at world-wide and EEA level. Throughout the period of the infringement those companies were competitors and were aware of the arrangements and the decisions taken which were implemented.

284. Furthermore, even though it is not necessary to show that the participants had agreed in advance upon a comprehensive common plan, the description of the overall scheme in Section 4 demonstrates that participants agreed upon such a comprehensive plan in their meetings and other contacts which were organised on a regular continuous basis. Price fixing³¹² and the adoption of a common understanding and future strategy on the parameters which determine prices such as production, capacity, shipments and demand together with a monitoring system to ensure compliance with the arrangements concluded were all parts of that overall plan. The common aim of the plan was to control prices for the world-wide and thus also European sales of LCD panels for IT and TV applications.

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³¹² This was achieved through price increases, setting up of price ranges, minimum and/or target prices.

285. The anti-competitive arrangements took place through multilateral and bilateral contacts.
286. Multilateral Crystal Meetings started on 5 October 2001 and continued until February 2006.³¹³ As to the bilateral contacts, they continued uninterrupted in parallel throughout the duration of the Crystal Meetings.³¹⁴
287. Furthermore, the type of the infringement, the lines of action and the organisation followed the same pattern throughout the years. It may appear that the *modus operandi* of the collusion changed overtime, but this is considered normal in a long-lasting cartel in order to adapt to changing circumstances, in this case the fear of being detected (see the references in recital 269). Price fixing and the control of price parameters, such as production remained prominent features of the anti-competitive arrangements from October 2001 until February 2006. The parties had contacts to enter into agreements and review their decisions on a regular basis, as well as to monitor their implementation. As indicated in recital 269, the change that occurred in May 2005 did not lead, for the reasons indicated in that recital, to a change in the nature of the meetings. Whilst the contemporaneous documents refer to "*communicate market situation*" (recital 202) or "*summarise the production status*" (recital 214), the parties continued to inform each other of their future prices and price strategy, current prices, price gaps applied between specific panel sizes, capacity, capacity allocation and reallocation among different applications, fab capacity, capacity of new fabs, volumes sold, supply and demand forecasts. They continued discussing specific customers and the prices applied.
288. It is clear in this case that though the discussions in the first year of the cartel were concentrated on those products which the parties were actively producing and selling, TV panels were in fact already involved in those discussions as of September 2002, when TV panel data from [*] were discussed (see recital 141). As more and more participants started TV production, they started to share their data: [*]'s in March 2003 (see recital 149), [*]'s in April 2003 (see recital 151). From then onwards, TV panels were systematically discussed at the same cartel meetings as IT panels. Participants starting TV panel production were already aware of the fact that TV panels had been discussed during previous meetings and even if they had not shared their TV data from the very beginning of their production, they benefited from the information provided by others. It also appears from the contemporaneous documents that the parties were able to reallocate capacities among the different panel applications to influence demand and thereby price (see for illustration recitals 122, 154, 171, 187, 192 and 222). It is therefore clear that the parties followed the same objective, the same *modus operandi* with the involvement of the same undertakings within the framework of the same overall plan as was the case with the discussions on notebook and desktop monitor panels since 2001.

³¹³ See recitals 76, 87, 102, 103, 106, 107, 110, 112, 113, , 116, 118, 121, 124, 127, 128, 131, 134, 136, 139, 140, 141, 143, 144, 145, 146, 147, 150, 152, 153, 155, 157, 159, 160, 165, 167, 170, 171, 173, 174, 176, 177, 178, 179, 182, 183, 185, 186, 189, 192, 196, 197, 199, 200, 204, 205, 206, 210, 214, 217, 220, 222, 224 and 227

³¹⁴ See recitals 98, 131, 161, 162, 161, 166, 185, 189, 207 and 208.

289. Therefore, the arrangements agreed and taken from October 2001 are to be viewed as one coherent set of arrangements which continued uninterruptedly until February 2006.
290. In reply to the arguments of CMO that the Commission had not appropriately defined the relevant market in the SO, the consistent case law of the General Court³¹⁵ makes it clear that the Commission is under no duty to define the relevant market in cartel cases, but that the product scope of the cartel is defined by the scope of the participants' discussions. In this respect the General Court stated in *Tokai* that: "*It is not the Commission which arbitrarily chose the relevant market but the members of the cartel in which [the Applicant] participated who deliberately concentrated their anti-competitive conduct on [the identified] products.*"³¹⁶
291. The arguments of AUO and CMO on the inadmissibility of the evidence submitted by [*] in its reply to the SO are not acceptable. As those pieces of evidence related to Crystal and bilateral meetings held during the infringement period, and with the same subject and product matter among the parties, those pieces of evidence only corroborate and do not go beyond the scope of the infringement described in the SO. The parties' rights of defence were also duly respected as they were provided the opportunity to comment on those documents (see recitals 66 and 67).

5.3.3. *Restriction of competition*

5.3.3.1. Principles

292. The complex of agreements and/or concerted practices in this case had the object and effect of restricting competition in the Union and the EEA.
293. Article 101(1) of the Treaty and Article 53(1) of the EEA Agreement expressly include as restrictive of competition agreements and concerted practices which "*directly or indirectly fix selling prices or any other trading conditions*".³¹⁷

5.3.3.2. Arguments of the parties

294. AUO submits that the Commission did not demonstrate in the SO that the exchange of information that took place among the parties actually qualified as price fixing or output limitation. In AUO's view, the examples brought by the Commission do not support this conclusion. Nor does the evidence brought by the leniency applicants corroborate the conclusion of the Commission. The data exchanged was not a suitable basis for any price agreement and output limitation, and therefore a precondition of a successful price agreement was never discussed. The only conclusion which can be drawn from the evidence is that the market was highly competitive and that that effective competition is incompatible with the finding of an

³¹⁵ See for example Case T-38/02, *Groupe Danone v Commission* [2005] ECR II-4407, paragraph 99, and Case T-48/02, *Brouwerij Haacht NV v Commission* [2005] ECR II-5259, paragraph 58 and the case law cited in these paragraphs.

³¹⁶ Joined Cases T-71/03, T-74/03, T-87/03 and T-93/03, *Tokai Carbon and others v Commission* [2005] ECR II-10, paragraph 90.

³¹⁷ The list is not exhaustive.

agreement to fix prices or limit production. It also states that the pricing policy of AUO was constrained solely by the requirements of the marketplace and not by any discussions with competitors.³¹⁸ As it was dealt with in the SO, AUO stresses that the minutes of the meetings which ([*])([*]) submitted to the Commission *"were drafted in English by non-native English speakers with varying degrees of fluency"*.³¹⁹ It explains that the wording *"general consensus"* was translated from the Chinese phrase *"gong shi"* that does not mean *"agreement or making joint decision"*, but rather *"common views"* or *"common understanding"*.

295. Hannstar explains that the information exchanged was not sensitive or confidential. It denies that any agreement having anti-competitive effect or object was concluded.³²⁰

296. LPL submits that the market was not suitable for cartel agreements and that the activities described had no effects on the EEA market.³²¹ It claims that there was no enforcement mechanism for any such understanding except complaining about non-compliance at later meetings.³²²

5.3.3.3. Application in this case

297. The cartel has to be considered as a whole and in the light of the overall circumstances. In this case, the principal aspects of the complex of agreements and concerted practices which can be characterised as restrictions of competition are:

- direct fixing of prices including price increases and setting up price ranges and/or minimum prices;
- indirect fixing of prices by exchanging commercially sensitive information on sales, customers, capacity, production, investments and shipments, thereby coordinating future market behaviour concerning parameters which determine prices.

298. The direct and indirect price fixing arrangements were at the core of the cartel under consideration in this case. Indeed, given that price is the main instrument of competition, the various collusive arrangements and mechanisms adopted by the producers were all ultimately aimed at maintaining and inflating prices to their benefit above the level which would be determined by conditions of free competition.

299. Regarding the anti-competitive object of the exchange of information, the arrangements have to be seen in their context and in the light of all the circumstances. They served to attain the single objective of directly and indirectly increasing and maintaining prices. That objective was sustained through meetings and other contacts which took place on a regular, even monthly basis. These contacts enabled the undertakings to adapt their strategy to the information received from

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competitors: joint analysis of forthcoming oversupply leads to loading rate adjustment (capacity reallocation) in order to maintain agreed price (see recital 102); joint analysis of existing inventories and demand level leads to agreement to maintain price and wait peak season for upward price adjustment (see recital 130); common understanding of oversupply leads to cancellation of output increase and agreement to firmly hold actual price or to allow only small reduction (see recital 156); common expectation of forthcoming oversupply leads to conversion of capacity utilisation to other application (see recital 170); discussion of demand situation and cost levels lead to the establishment of appropriate minimum price to specific customer (see recital 186).

300. The parties also included intra-group sales in their arrangements. The upper limit for discount on intra-group sales was set at [*] at the meeting that set up the cartel, where it was also agreed that such reduction should be offered using after-sale rebates in order to avoid disturbing the order of market prices (see recital 76). The cartel continued that policy with respect to internal clients (see recital 107) and discussed customers connected to cartel participants ([*]) later on as well.³²³
301. That complex of agreements and concerted practices has as its object the restriction of competition within the meaning of Article 101(1) of the Treaty and Article 53(1) of the EEA Agreement. The arrangements are described in detail in the factual part of this Decision (Section 4).
302. The anti-competitive object of the parties is also confirmed by the fact that they took deliberate action to conceal their meetings and to avoid detection of their arrangements. The participant companies considered it important from the beginning (see recitals 76, 95 and 179) to implement security measures to avoid consequences of the antitrust law violation and made efforts to avoid being in possession of anti-competitive documents (e.g. *"do not talk about this meeting, not even to colleagues"* or *"requested everybody to take care of security/confidentiality matters and to limit written communication"*). In addition to the those precautionary measures, numerous documents bore the express designation as *"Confidential"* or *"Extremely Confidential"* (recitals 107, 128, 148 and 159) and instructed the addressees not to distribute the document (recitals 107 and 148), which further indicates the illegal purpose of the contacts and the intention to conceal them. Those precautionary measures clearly related to the risk of detection by antitrust authorities as it was expressed many times, (see recital 111), in particular with reference to the DRAMs investigation (see recital 179). Confidentiality was maintained within the participating companies as well. In an internal [*] e-mail summarising a Crystal meeting, the author does not indicate the place of the meeting, but only says that it was in *"Taipei (same as last month)"* and notes *"*Location not specified here for confidentiality reasons"*.³²⁴ Similarly, [*,] as organiser, noted: *"location to be disclosed one day before the meeting in order to maintain confidentiality"*.³²⁵ [*]

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also comments on the summary of a Crystal meeting that "*I am still maintaining strictly limited distribution for this summary*".³²⁶

303. It is settled case law that for the purpose of application of Article 101(1) of the Treaty and Article 53(1) of the EEA Agreement there is no need to take into account the actual effects of an agreement when it has as its object the prevention, restriction or distortion of competition within the internal market. Consequently, it is not necessary to show actual anti-competitive effects where the anti-competitive object of the conduct in question is proven.³²⁷
304. Even though it is not necessary to show any anti-competitive effects, the facts as established in Section 4 of this Decision demonstrate the existence of anti-competitive effects of the cartel arrangements as a whole, comprising agreements and concerted practices.
305. It has been demonstrated that the undertakings involved directly and indirectly fixed prices, exchanged commercially sensitive information and defined and applied a reporting line and monitoring system to ensure implementation of the restrictive agreements.
306. There is also evidence of implementation of the anti-competitive arrangements:
- the implementation of the cartel arrangements was ensured through monthly meetings and other contacts between the representatives of the participant undertakings, where the results of previous agreements were discussed. The agreements adopted between the higher-level representatives of the undertakings were put into operation by the less senior employees of the undertakings who discussed the more detailed and specific issues of the agreements;³²⁸
 - there was regular, even monthly, checking of the price, production volume, capacities and other parameters. The establishment of a common basis for future prices allowed the suppliers to verify compliance at the following monthly meeting, when participants were required to update their current month's prices (see recital 286);
 - the fact that the participants met regularly over a period of more than four years to discuss market situation, prices and price parameters is an indication that the parties must have been convinced of the sense and purpose of the meetings so that it can be assumed that they must have had an impact and therefore were

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Case T-62/98, *Volkswagen AG v Commission* [2000] ECR II-2707, paragraph 178, Case C-105/04 P, *Nederlandse Federatieve Vereniging voor de Groothandel op Elektrotechnisch Gebied v Commission* [2006] ECR 8725, paragraph 125 and judgment of 16 October 2009 in Joined Cases C-501/06 P, 513/06 P, 515/06 P and 519/06 P, *GlaxoSmithKline Services Unlimited and others v Commission* not yet reported, paragraph 55.

³²⁸

See recitals 103, 105, 106, 107, 110, 112, 113, 114, 116, 118, 121, 124, 128, 131, 134, 136, 139, 140, 141, 142, 143, 144, 145, 146, 147, 150, 152, 153, 155, 157, 159, 160, 165, 167, 170, 171, 173, 174, 176, 177, 178, 179, 182, 183, 185, 186, 189, 192, 196, 197, 199, 200, 207, 210, 214, 217, 220, 222, 224 and 227

effective;³²⁹ the parties have also specifically referred to successful instances of price increase;³³⁰

- implementation also took the form of reconsidering and redressing a planned price quote that was lower than the one agreed on a subsequent meeting (see recital 87);
- the parties expressed concerns when it seemed that the price increase was not passed on to consumers and hence could not influence the level of demand (see recital 92).

307. The fact that an agreement having an anti-competitive object is implemented, even if only in part, is sufficient to preclude the possibility that the agreement had no effect on the market.³³¹
308. Concerning the allegations of AUO regarding the lack of any agreement on price between the parties, it is apparent that [*]. First, the description of facts in Section 4 does not leave any doubt about the collusive character of the arrangements and the existence of an agreement to fix prices. As explained in recitals 261-264, there is evidence that agreements on price-fixing and in particular, minimum prices were concluded. Second, [*] provided the Commission with numerous minutes of the Crystal Meetings demonstrating the conclusion of price agreements and decisions on many other points amongst the participant competitors. Third, AUO hosted a number of Crystal Meetings (see recitals 121, 127, 148, 155, 165, 173, 179 and 185). [*]. Finally, in the event of non-compliance AUO did provide explanations and promised correction as soon as possible (see recital 104).
309. On the issue of language and interpretation, it is difficult to understand why the participants, while using the English language as a common instrument of communication, were unable to understand and convey correctly the meaning of words such as "agreement" or "decision". In any event, that claim was not raised by any of the parties other than AUO. Furthermore, AUO *"suggested a gradual price increase in MNT price and a big increase in NB price"* at a meeting where Chinese language was used.³³² As to the issue of the exact purpose of the meetings, it is difficult to understand how an undertaking that participated in – and many times itself hosted – meetings with competitors, organised on a monthly basis during at least four full years, would not be able to identify the "exact purpose" of those meetings.
310. As regards LPL's claim that *"there was no enforcement mechanism for any such understanding except complaining about non-compliance at later meetings"*, it has been demonstrated that implementation of the arrangements was ensured through regular meetings between the participants, where the parties made attempts to control

³²⁹ Joined Cases T-305/94 to T-307/94, T-313/94 to T-316/94, T-318/94, T-325/94, T-328/94, T-329/94 and T-335/94, *Limburgse Vinyl Maatschappij and Others v Commission* [1999] ECR II-931, paragraph 748.

³³⁰ See recitals 107, 107, , 110, 112, 113, 115, 116, 119, 120, 122, 149, 161, 168 and 170.

³³¹ Case T-38/02, *Groupe Danone v Commission* [2005] ECR II-4407, paragraph 148.

³³² [*]

deviation (see recital 96). Such implementation also took the form of redressing a price quote to a customer lower than the one previously agreed between the parties by applying a subsequent price increase (see recital 87). The implementation of specific discussions which took place at the meetings has been amply demonstrated (see footnote 330).

311. As to whether AUO was influenced by the discussions so as to alter its pricing policy after the meetings, this is not an element required for the determination of the object of the anti-competitive behaviour. In any event, there is no rationale in attending meetings for more than four years - and several times twice a month - only to disclose and collect non sensitive information. Moreover, it is contradictory to provide its competitors with non sensitive information and hope that in turn they would provide sufficient information to *"obtain some degree of insight into the intentions of its competitors."*
312. Moreover, even though in some instances the parties were not or not entirely following the agreed line of behaviour, the occurrence of internal conflicts and rivalries, or even cheating does not prevent the arrangement from constituting an agreement or concerted practice for the purposes of Article 101 of the Treaty, where there is a single common and continuing objective.
313. Indeed, if an undertaking is present at meetings or participates in contacts with competitors that have a manifestly anti-competitive purpose, unless it openly, unequivocally and publicly distances itself from what is agreed and from all the participants of the cartel, it will be considered to be a party even if (*quod non in casu*) it does not in fact *"take action"* or if there is no *"enforcement mechanism"* to implement the anti-competitive arrangements. The distancing by an undertaking vis-à-vis the other cartel participants must be done in such a way that the other participants are aware that it does not subscribe to the conclusions of meetings and will not act in conformity with them or is participating in the meetings in a spirit which is different from theirs.³³³
314. Finally, and notwithstanding these considerations, there is sufficient evidence that both LPL and AUO participated in the cartel arrangements, engaged directly and indirectly in price fixing and implemented those arrangements (see recitals 261 to 264).

5.3.4. *Effect upon trade between Member States and between EEA Contracting Parties*

5.3.4.1. Principles

315. Article 101(1) of the Treaty is aimed at agreements which might harm the attainment of a single market between the Member States, whether by partitioning national markets or by affecting the structure of competition within the internal market.

³³³ Case C-199/92 P, *Hüls AG v Commission* [1999] ECR I-4287, paragraph 155, Case C-49/92 P, *Commission v Anic Partecipazioni SpA* [1999] ECR I-4125, paragraph 96; Case C-204/00 P, *Aalborg Portland A/S and others v Commission* [2004] ECR I-123, paragraphs 81-86; Joined Cases T-259/02 to T-264/02 and T-271/02 *Raiffeissen Zentralbank Österreich and others v Commission* ("Lombard Club") [2006] ECR II-5169, paragraph 486.

Similarly, Article 53(1) of the EEA Agreement is directed at agreements that undermine the achievement of a homogeneous European Economic Area.

316. The Court of Justice and General Court have consistently held that, "in order that an agreement between undertakings may affect trade between Member States, it must be possible to foresee with a sufficient degree of probability on the basis of a set of objective factors of law or fact that it may have an influence, direct or indirect, actual or potential, on the pattern of trade between Member States".³³⁴ Article 101(1) of the Treaty does not require that the arrangements referred to in that provision have actually affected trade between Member States, but it does require that it be established that those arrangements are capable of having that effect.³³⁵ An effect on intra-Union trade is normally the result of a combination of several factors which, taken separately, are not necessarily decisive. In order to assess whether a cartel has an appreciable effect on trade between Member States, it is necessary to examine it in its economic and legal context.³³⁶ In particular, the Court of Justice has held in *Woodpulp* that any agreement whose object or effect is to restrict competition by fixing prices for an intermediate product is capable of affecting intra-Union trade, even if there is no trade in that intermediary product between Member States, where the product constitutes the raw material for another product marketed elsewhere in the Union.³³⁷
317. According to the Commission Guidelines on the effect on trade concept contained in Articles 81 and 82 of the Treaty³³⁸, Article 101 of the Treaty applies to agreements and practices that are capable of affecting trade between Member States even if one or more of the parties are located outside the Union. The Notice confirms clearly that trade between Member States can be affected in the case of agreements which relate to imports or exports with third countries.
318. For the purposes of establishing jurisdiction of the Commission, it is sufficient that an agreement or practice involving third countries or undertakings located in third countries is capable of affecting cross-border economic activity inside the Union. Import into one Member State may be sufficient to trigger effects of this nature. Imports can affect the conditions of competition in the importing Member State, which in turn can have an impact on exports and imports of competing products to and from other Member States. In other words, imports from third countries resulting from the agreement or practice may cause a diversion of trade between Member States, thus affecting patterns of trade.³³⁹

³³⁴ See Case 56/65, *Société Technique Minière* [1966] ECR 282, paragraph 7; Case 42/84, *Remia and Others* [1985] ECR 2545, paragraph 22 and and Joined Cases T-25 to 26/95, T-30 to 32/95, T-34 to 39/95, T-42 to 46/95, T-48/95, T-50 to 65/95, T-68 to 71/95, T-87 to 88/95 and T-103 to 104/95, *Cimenteries CBR and Others v Commission* [2002] ECR II-491, paragraph 3930.

³³⁵ Cases C-215/96 and C-216/96 *Bagnasco and Others* [1999] ECR I-135, paragraph 48.

³³⁶ Joined Cases C-125/07 P, C-133/07 P, C-135/07 P and C-137/07 P *Erste Group Bank and Others v Commission* [2009] I-8681, paragraph 37

³³⁷ Joined Cases 89/85, 104/85, 114/85, 116/85, 117/85, and 125 to 129/85 *Ahlström Osakeyhtiö and others v Commission* ('Woodpulp I') [1993] ECR I-1307, para 142

³³⁸ OJ C 101, 27.4.2004, p. 7, point 100.

³³⁹ *Ibid.*, point 101.

5.3.4.2. Arguments of the parties

319. CMO claims that the Commission does not present a detailed analysis required by its own Guidelines on the effect on trade in establishing that trade between Member States was affected. It also failed to establish, despite the requirement of the *Haladjian Frères* case law³⁴⁰, that such an effect was substantial. CMO continues to argue that the circumstances that led the Commission to establish the effect on trade in the *Woodpulp* case,³⁴¹ notably artificially uniform prices in the EEA and substantial potential for arbitrage, were not present in this case. It also argues that as the location of assembly facilities is determined by considerations unrelated to the price of the panels, a possible increase in price does not influence whether deliveries are made to those locations.³⁴²
320. LPL submits that the Commission does not demonstrate the direct or indirect effects justifying the establishment of the effect on trade between Member States. The Commission should mention specific customers or demonstrate foreseeable, immediate and substantial effects on intra-Union trade. It submitted an economic study that, it claims, shows would that such effects did not materialise. Indirect effects should also have been demonstrated through objective factors of law or the fact that passing-on actually took place.³⁴³

5.3.4.3. Application in this case

321. The arrangements to which this Decision relates had an appreciable effect upon trade between Member States and between contracting parties to the EEA Agreement.
322. As demonstrated in Section 2.4 on “Inter-State Trade”, the sector is characterised by a substantial volume of trade world-wide and between Member States and there is also a considerable volume of trade between Member States and between contracting parties of the EEA Agreement.
323. The application of Articles 101 of the Treaty and Article 53 of the EEA Agreement to a cartel is not, however, limited to that part of the participants’ sales that actually involve the transfer of goods from one State to another. Nor is it necessary, in order for those provisions to apply, to show that the individual conduct of each participant, as opposed to the cartel as a whole, affected trade between Member States.³⁴⁴
324. Although the cartel arrangements which are the subject matter of this Decision took place at world-wide level,³⁴⁵ LCD panels were delivered and/or billed directly to customers in Europe, including various producers of downstream equipment like [*]³⁴⁶ and to European entities connected to the undertakings that participated in the

³⁴⁰ Case T-204/03, *Haladjian Frères SA v Commission* [2006] ECR II-03779, paragraph 167.

³⁴¹ Joined cases 89/85, 104/85, 114/85, 116/85, 117/85 and 125-129/85, *Ahlström Osakeyhtiö and others v Commission* (“*Woodpulp*”) [1988] ECR 5193

³⁴² [*]

³⁴³ [*]

³⁴⁴ Case T-13/89, *Imperial Chemical Industries v Commission* [1992] ECR II-1021, paragraph 304.

³⁴⁵ See recital 48.

³⁴⁶ Parties' answers to the request for information of 4 March 2010.

infringement such as Samsung. The existence of agreements and concerted practices aimed at increasing or maintaining prices resulted, or was likely to result, in the automatic diversion of trade patterns from the course they would otherwise have followed.³⁴⁷ The cartel arrangements were implemented in the EEA and their impact in the EEA unavoidably affected price levels and consumption within the EEA and thus had an effect on trade between Member States.

325. The cartel arrangements produced effects within the EEA not only through the direct sales of LCD panels but also indirectly through inter-state trade of incorporated LCD panels. As it was demonstrated above in recitals 92 and 93, the parties aimed to and took note of the passing-on of the surcharge to final consumers and the effects thereof on demand.
326. Finally, according to the participants' own estimation, their joint share was predominant ([around 70%] on the market (see recital 43), and they have submitted contemporaneous evidence in the form of Display Search analysis setting the parties' joint market share at between [65 to 80%] during the infringement period (see recital 43).
327. In those circumstances, it can be concluded that the cartel arrangements had an appreciable effect on trade between Member States and Contracting Parties to the EEA Agreement. In this connection, it is not relevant that the market situation with respect to LCD panels was not identical to the one at stake in the *Woodpulp* case. In any event, the Court of Justice held in *Woodpulp* that even if there were no trade between Member States in the intermediary product concerned by the cartel arrangements, where the product constitutes the raw material for another product marketed elsewhere in the Union, the agreement whose object or effect is to restrict competition by fixing prices for the intermediate product is capable of affecting trade. It is not disputed that there is significant trade between Member States of finalised products incorporating LCD panels.
328. The distorting effect on trade between Member States deriving from the implementation of the cartel arrangements was present even if the suppliers refrained from applying the inflated cartel prices vis-à-vis their connected European customers, as was claimed by some parties in their replies to the SO.³⁴⁸ In such a situation trade between Member States was distorted through the use of the illegally acquired competitive cost advantage. In any event, where the infringement in which those parties participated was apt to affect trade between Member States, it is not necessary to demonstrate that their individual participation affected trade between Member States.³⁴⁹
329. As regards the economic study submitted by [*], which allegedly shows the absence of any effect on prices, the study suffers from major flaws and can therefore not be taken into account (see recitals 414 and 415 and Annex II). Moreover, it should be recalled that Article 101(1) of the Treaty does not require that the arrangements

³⁴⁷ Joined Cases 209 to 215 and 218/78, *Van Landewyck and others v Commission* [1980] ECR 3125, paragraph 170.

³⁴⁸ ID 2120, p. 57 (reply to the SO by LPL).

³⁴⁹ Case T-13/89, *Imperial Chemical Industries v Commission* [1992] ECR II-1021, paragraph 305.

referred to in that provision have actually affected trade between Member States, but that those arrangements are capable of having that effect.

330. Based on the above circumstances, it can therefore be established that the cartel arrangements could and did have a substantial impact on the patterns of trade between Member States and on the EEA market through Direct EEA Sales of LCD panels and Direct EEA Sales Through Transformed products on the patterns of trade between Member States and on the EEA market.

331. Insofar as the activities of the cartel related both directly and indirectly to sales in countries that are not Member States or Contracting Parties to the EEA Agreement, they lie outside the scope of this Decision.

5.4. Non-Application of Article 101(3) of the Treaty and Article 53(3) of the EEA Agreement

332. There are no indications suggesting that the conditions of Article 101(3) of the Treaty and Article 53(3) of the EEA Agreement could be fulfilled in this case.

333. Furthermore none of the addressees has made such a claim.

6. ADDRESSEES OF THIS DECISION

6.1. Principles

334. The subjects of Union competition rules are undertakings, a concept which is not identical with that of a corporate legal personality for the purposes of national commercial or fiscal law. The undertaking that participated in the infringement therefore does not necessarily coincide with the precise legal entity or entities within the group of companies whose representatives actually took part in the cartel meetings. The term “undertaking” is not defined in the Treaty. It may refer to any entity engaged in commercial activities. The case law has confirmed that Article 101 of the Treaty is aimed at economic units which consist of a unitary organisation of personal, tangible and intangible elements which pursue a specific economic aim on a long-term basis and can contribute to the commission of an infringement of the kind referred to in that provision.³⁵⁰

335. Despite the fact that Article 101 of the Treaty refers to undertakings and that the concept of undertaking has an economic scope, only entities with legal personality can be held liable for its infringement and/or for the payment of the related fine.³⁵¹

³⁵⁰ Case T-11/89, *Shell International Chemical Company v Commission* [1992] ECR II-757, paragraph 311. See also Case T-352/94 *Mo Och Domsjö AB v Commission* [1998] ECR II-1989, paragraphs 87-96.

³⁵¹ Although an ‘undertaking’ within the meaning of Article 101 of the Treaty is not necessarily the same as a company having legal personality, it is necessary for the purposes of applying and enforcing decisions to identify an entity possessing legal personality to be the addressee of the measure. Joined Cases T-305/94 etc, *Limburgse Vinylmaatschappij and Others v Commission* (“PVC II”) [1999] ECR II-931, paragraph 978.

Measures enforcing Union competition rules must thus be addressed to one or more legal entities.

336. It is accordingly necessary to define the undertaking that should be held accountable for the infringement of Article 101 of the Treaty by identifying one or more legal persons to represent the undertaking. Union competition law recognises that different companies belonging to the same group form an economic unit and therefore an undertaking within the meaning of Articles 101 and 102 of the Treaty if the companies concerned do not determine independently their own conduct on the market.³⁵² If a subsidiary does not determine its own conduct on the market independently, the company which directed its commercial policy (that is to say, which exercised decisive influence)³⁵³ forms a single economic entity with the subsidiary and may thus be held liable for an infringement on the ground that it forms part of the same undertaking (so-called "parental liability").
337. According to the settled case law of the Court of Justice and the General Court, the Commission can generally assume that a wholly-owned (or almost wholly-owned) subsidiary essentially follows the instructions given to it by its parent company without needing to check whether the parent company has in fact exercised that power.³⁵⁴
338. Therefore, a parent company and its wholly-owned subsidiaries are presumed to constitute a single "undertaking" within the meaning of Article 101 of the Treaty. As seen at recital 336, within such an undertaking the legal entities *liable for the infringement* of Article 101 of the Treaty will be identified on the basis of (i) their direct participation in the infringement and/or of (ii) the decisive influence exercised by the parent company on the company or companies which directly participated in the infringement.
339. Legal entities within an undertaking which have participated in their own right in an infringement and which have been acquired in the meanwhile by another undertaking continue to answer themselves for their unlawful activity prior to their acquisition, when they have not been purely and simply absorbed by the acquirer, but continued their activities as subsidiaries.³⁵⁵ In such a case, the acquirer might only be liable for the conduct of its new subsidiary from the moment of its acquisition if the latter persists in the infringement and liability can be established.³⁵⁶

³⁵² Case T-203/01, *Michelin v Commission* [2003] ECR II-4371, paragraph 290

³⁵³ C-286/98 P, *Stora Kopparbergs Bergslags AB v Commission* [2000] ECR I-9925, paragraph 37..

³⁵⁴ Judgment of 10 September 2009 in Case C-97/08 P, *Akzo Nobel NV e.a. v Commission*, not yet reported, paragraphs 60-64; Case T-405/06, *ArcelorMittal Luxembourg e.a. v Commission*, 31 March 2009, not yet reported, paragraph 91; judgment of 12 December 2007 in Case T-112/05, *Akzo v Commission*, 12 December 2007, not yet reported, paragraphs 60-65; Joined Cases T-71/03 etc., *Tokai Carbon and Others v Commission* [2005] ECR II-10, paragraph 60; Case T-354/94, *Stora Kopparbergs Bergslags v Commission* [1998] ECR II-2111, paragraph 80, upheld by the Court of Justice in Case C-286/98 P, *Stora Kopparbergs Bergslags v Commission* [2000] ECR I-9925, paragraphs 27, 28 and 29; and Case 107/82, *AEF v Commission* [1983] ECR 3151, paragraph 50.

³⁵⁵ Case C-279/98 *Cascades v Commission* [2000] ECR I-9693, paragraph 78-80.

³⁵⁶ Case T-354/94, *Stora Kopparbergs Bergslags AB v Commission* [1998] ECR II-2111, paragraph 80.

340. When an undertaking that has committed an infringement of Article 101 of the Treaty subsequently disposes of the assets which contributed to the infringement and withdraws from the market in question, it continues to be answerable for the infringement if it has not ceased to exist.³⁵⁷ If the undertaking which has acquired the assets carries on the violation of Article 101 of the Treaty, liability for the infringement should be apportioned between the seller and the acquirer of the infringing assets, each undertaking being responsible for the period of the infringement in which it participated through those assets in the cartel. However, if the legal person initially answerable for the infringement ceases to exist and loses its legal personality, being purely and simply absorbed by another legal entity, that latter entity must be held answerable for the whole period of the infringement and thus liable for the activity of the entity that was absorbed.³⁵⁸ The mere disappearance of the person responsible for the operation of the undertaking when the infringement was committed does not allow it to evade liability.³⁵⁹ Liability for a fine may thus pass to a successor where the corporate entity which committed the violation has ceased to exist in law.
341. Different conclusions may, however, be reached when the particular business is carried out at different points in time and without any time interruption by different legal entities belonging to the same undertaking. In such cases, liability for past behaviour of the transferor may transfer to the transferee, notwithstanding the fact that the transferor remains in existence.³⁶⁰
342. The same principles hold true, *mutatis mutandis*, for the purposes of the application of Article 53 of the EEA Agreement.

6.2. Application to this case

343. In application of the above principles, this Decision should be addressed to those legal entities whose representatives participated in cartel meetings and other forms of anti-competitive contacts with competitors. In addition, this Decision should be addressed to the parent companies of those legal entities in as far as it is assumed that they exercised decisive influence over the commercial policy of their wholly owned subsidiaries. Together, those legal entities should be held liable for the infringement of Article 101 of the Treaty and of Article 53 of the EEA Agreement.

6.2.1. Samsung

344. It is established in Section 4, that representatives of the Samsung group of companies took part in the cartel meetings or had direct contacts with competitors over the period from 5 October 2001 to February 2006.

³⁵⁷ Case T-6/89, *Enichem Anic v Commission (Polypropylene)* [1991] ECR II-1623, paragraph 237; Case C-49/92 P, *Commission v Anic Partecipazioni* [1999] ECR I-4125, paragraphs 47-49.

³⁵⁸ Case C-279/98 P, *Cascades v Commission* [2000] ECR I-9693, paragraphs 78 and 79.

³⁵⁹ Case T-305/94, *PVC II*, paragraph 953. This point was confirmed by the Court of Justice in *Limburgse Vinyl Maatschappij NV and others (PVC II)*.

³⁶⁰ Joined Cases C-204/00 P (and other), *Aalborg Portland A/S a.o. v Commission* [2004] ECR I, 267, paragraphs 354-360, and Case T-43/02 *Jungbunzlauer AG v Commission*, [2006] ECR II-3435, paragraphs 132-133.

345. Employees of Samsung Taiwan took part in the cartel meetings throughout that period. Therefore, Samsung Taiwan should be held liable for its direct participation in the infringement.
346. Samsung argues that its employee participating in the January and February 2006 meetings attended those events against express instructions,³⁶¹ suggesting that the behaviour of such an employee cannot be taken into account to find an infringement in respect of Samsung and that its participation in the infringement would already have come to an end before January 2006 had its employee not disobeyed its instructions. However, that argument is immaterial. According to case law an undertaking – that is to say an economic unit comprising personal, tangible and intangible elements – is directed by the organs provided for in its articles of association and any decision imposing a fine on it may be addressed to the management as provided for in those articles of association (management board, management committee, chairman, manager, and so on). The rules of competition would be easily circumvented if the Commission, faced with unlawful conduct on the part of an undertaking, were required to ascertain and to prove who is the author of the various activities, which could have the effect of preventing it from penalising the undertaking which benefited from the cartel.³⁶²
347. Moreover, SEC (Samsung Electronics Corporation, Ltd) should be held liable both for its direct participation throughout almost the entirety of the duration of the infringement, as well as for Samsung Taiwan's conduct in as far as SEC wholly owned the latter throughout the entire duration of the infringement.
348. As regards SEC's direct involvement, it should be noted that [*] himself had anti-competitive contacts with CMO, CPT, and AUO³⁶³ and that [*] took part in the cartel meetings for almost the entirety of the duration of the infringement (that is to say, from 19 October 2001 to 17 March 2005).
349. As regards SEC's liability as parent company, SEC held 100% of the shares of Samsung Taiwan throughout the duration of the infringement (see recital 7). In accordance with the case law referred to in recital 337, it is presumed that SEC exercised decisive influence and effective control over Samsung Taiwan.
350. In addition to SEC's 100% ownership of Samsung Taiwan, there are further elements that reinforce that presumption.
351. Samsung explained that "[*]. On that basis, SEC was fully aware and regularly involved in the everyday conduct of its subsidiaries.
352. Moreover, Samsung described as follows the pricing process within the Samsung group: "[*] The subsidiaries of the Samsung group are therefore dependent on their headquarters for the basic orientation of an essential element of their commercial strategy: the price."³⁶⁴ As a result, the Samsung group as a whole must be considered

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Case T-53/03, *BPB v Commission* [2008] ECR I-1333, paragraphs 353 and 360.

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See the case law mentioned at recital 337.

to constitute a single economic unit ("*the undertaking*") for the application of Article 101 of the Treaty to this case.

353. In the light of the above considerations, SEC and Samsung Taiwan should be held jointly and severally liable for the entire duration of the undertaking's participation in the infringement.

6.2.2. *LPL and LPLT*

354. It is established in Section 4 above that employees of LPL (LG.Philips LCD Co., Ltd., now "LG Display Co. Ltd.") and LPLT (LG Philips LCD Taiwan Co., Ltd.), participated in cartel meetings or were informed thereof via internal reporting over the period from 5 October 2001 to February 2006.

355. Employees of LPLT took part in the cartel meetings throughout that period. LPLT should therefore be held liable for its direct participation in the infringement.

356. LPL should be held liable both for its direct involvement in the infringement and as the controlling parent company of LPLT (see recitals 118, 132, and 169, respectively for the meetings of 13 March 2002, 18 June 2002 and 21 December 2003).

357. In as far as its liability as parent company is concerned, LPL held 100% of the shares of LPLT throughout the duration of the infringement. (see recital 14). In accordance with the case law referred to in recital 337, it is presumed that LPL exercised decisive influence and effective control over LPLT.

358. In addition to LPL's 100% ownership of LPLT, other elements reinforce that presumption.

359. First, it follows from the recitals 115, 116, 121, 124, 136, 147, 168, 170, 174, 178, 179, 182, 186, 192, 197, 200, 214 and 217 that representatives of LPL were regularly kept informed of LPLT's participation in the anti-competitive meetings and contacts. [*].

360. That [*] was aware of the infringing behaviour [*] is also shown by the report made by [*] of the meeting of 5 May 2005 (see recital 202) which states *inter alia* that "[*] ordered that mid to high level personnel are not allowed to attend this kind of meeting; as such, this meeting will be down sized to be attended by a marketing person from each company to communicate market situations".³⁶⁵ In a subsequent e-mail from [*] regarding the meeting of 4 August 2005, it is reported "*The size of the meetings is being cut down and the meeting is being conducted with a focus on working level employees. Due to the characteristic of the meeting, as before, will continue to keep the existence of the meeting confidential*".³⁶⁶ As a result, the management of [*]³⁶⁷ was aware of the anti-competitive contacts of its subsidiaries and involved to the extent that it decided the level of the participants at the cartel meetings.

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361. A second element that reinforces the presumption is the fact that the individuals who participated more frequently in the cartel meetings – [*] - were employed, immediately before, during or after those meetings by [*]³⁶⁸

362. In light of the above considerations, LPL and LPLT should be held jointly and severally liable for the entire duration of the infringement. The fact that LG Philips LCD Co., Ltd., and LG Philips LCD Taiwan Co., Ltd., have recently changed their names, respectively, to "LG Display Co., Ltd." and "LG Display Taiwan Co., Ltd." has no bearing here, in as much as this is a change of name only and does not reflect a merger, acquisition or sale of assets.³⁶⁹

6.2.3. *AUO*

363. It is established in Section 4 above that employees of AU Optronics Corporation (including its [*]) directly participated in cartel meetings from 5 October 2001 until February 2006. AU Optronics Corporation should therefore be held liable for its direct participation in the infringement.

6.2.4. *CMO*

364. It is established in Section 4 above that employees of Chi Mei Optoelectronic Corporation have directly participated in the cartel meetings from 5 October 2001 until February 2006. As a result, Chi Mei Optoelectronic Corporation should be held liable for its direct participation in the infringement (see recital 340). Chimei InnoLux Corporation is the legal successor of Chi Mei Optoelectronic Corporation that ceased to exist in law on the date of the merger³⁷⁰ (see recital 27).

6.2.5. *CPT*

365. It is established by the facts established in Section 4 that employees of Chunghwa Picture Tubes, Ltd. have directly participated in the cartel meetings from 5 October 2001 until February 2006. Chunghwa Picture Tubes, Ltd. should therefore be held liable for its participation in the infringement.

6.2.6. *HannStar*

366. As described in Section 4, representatives of HannStar Display Corporation participated in the cartel meetings from 5 October 2001 until 6 January 2006.

367. HannStar Display Corporation should therefore be held liable for its participation in the infringement.

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See. Case C-279/98 P, *Cascades v Commission* [2000] ECR I-9693, paragraphs 78 and 79.

7. DURATION OF THE INFRINGEMENT

368. Despite earlier, documented competitor contacts presented in Section 4.2, it is considered appropriate to set the starting date of the cartel at the Crystal Meeting of 5 October 2001, when the first of the established, institutionalised multilateral meetings, at which all parties participated, took place. The starting date of the infringement should therefore be 5 October 2001 for all participants.
369. The multilateral meetings, accompanied by occasional bilateral meetings, remained regular and continued until early 2006. The last precisely dated multilateral meeting took place on 6 January 2006. However, evidence presented in recital 227 leaves no doubt that a last meeting was held in February 2006, though the exact day remains unclear. For the benefit of the parties, the end date of the infringement should be set at 1 February 2006.
370. Though it is clear from recital 227 that Hannstar was also present at and contributed to the February 2006 meeting, the SO indicated that it stopped participating in the infringement on 6 January 2006. Therefore, the end of its participation should be set at 6 January 2006.
371. In conclusion, based on the facts described in this Decision, the infringement lasted as follows for each of the undertakings concerned:

Table 3: The duration of the infringement for each undertaking

Undertaking	Start	End
Samsung	5 October 2001	1 February 2006
LPL	5 October 2001	1 February 2006
AUO	5 October 2001	1 February 2006
CMO	5 October 2001	1 February 2006
CPT	5 October 2001	1 February 2006
HannStar	5 October 2001	6 January 2006

8. REMEDIES**8.1. Article 7 of Regulation (EC) No 1/2003**

372. Where the Commission finds that there is an infringement of Article 101 of the Treaty, it may require the undertakings concerned to bring such infringement to an end in accordance with Article 7(1) of Regulation (EC) No 1/2003.

373. Given the secrecy with which the cartel arrangements were carried out, it is not possible to declare with absolute certainty that the infringement has ceased. It is therefore necessary for the Commission to require the undertakings to which this Decision is addressed to bring the infringement to an end (if they have not already done so) and henceforth to refrain from any agreement and/or concerted practice which would have the same or a similar object or effect.

8.2. Article 23(2) of Regulation (EC) No 1/2003 - Fines

374. Under Article 23(2) of Regulation (EC) No 1/2003, the Commission may by decision impose fines on undertakings where, either intentionally or negligently, they infringe Article 101 of the Treaty and/or Article 53 EEA.³⁷¹ Under Article 15(2) of Regulation No 17: First Regulation implementing Articles 85 and 86 of the Treaty³⁷² (hereinafter referred to as "Regulation No 17"), which was applicable during part of the infringement, the fine for each undertaking participating in the infringement could not exceed 10% of its total turnover in the preceding business year. The same limitation results from Article 23(2) of Regulation (EC) No 1/2003.

375. Pursuant to Article 15(2) of Regulation No 17 and Article 23(3) of Regulation (EC) No 1/2003, the Commission must, in fixing the amount of the fine, have regard to all relevant circumstances and particularly the gravity and duration of the infringement, which are the two criteria explicitly referred to in those Regulations. In doing so, the Commission will set the fines at a level sufficient to ensure deterrence. Moreover, the role played by each undertaking party to the infringement will be assessed on an individual basis. In particular, the Commission will reflect in the fines imposed any aggravating or mitigating circumstances pertaining to each undertaking.

376. In setting the amount of the fines to be imposed, the Commission will refer to the principles laid down in its Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation (EC) No 1/2003 (hereafter, "the Guidelines on Fines").³⁷³ Finally, the Commission will apply, as appropriate, the provisions of the Leniency Notice.

377. In this case, it is concluded, on the basis of the facts described in Section 4 and the assessment in Section 5, that the infringement was committed intentionally or negligently (see recital 377). The infringement consisted of direct and indirect price fixing and the exchanging of commercially sensitive information concerning LCD panels for IT and TV applications of large size (of 12" and above, see recitals 261-264 and 297).

³⁷¹ Under Article 5 of Council Regulation (EC) No 2894/94 of 28 November 1994 concerning arrangements of implementing the Agreement on the European Economic Area "*the Community rules giving effect to the principles set out in Articles 85 and 86 of the EC Treaty [now Articles 101 and 102 of the Treaty on the Functioning of the European Union] [...] shall apply mutatis mutandis*". (OJ L 305, 30.11.1994, p. 6).

³⁷² OJ L 3, 21.2.1962, p. 204.

³⁷³ OJ C 210, 1.9.2006, p. 2.

8.3. Basic amounts of the fine

8.3.1. Methodology for setting the fine amount

378. According to the Guidelines on fines, the basic amount of the fine consists, first, of an amount of between 0% and 30% of a company's relevant sales during the infringement period, according to the degree of gravity of the infringement. Second, an additional amount of between 15% and 25% of the value of a company's relevant sales can be added, irrespective of duration, in order to deter horizontal price fixing agreements (the so-called 'entry fee'). The resulting basic amount can then be increased or reduced for each company if either aggravating or mitigating circumstances are retained. Should the ensuing amount of the fine exceed 10% of the world-wide turnover of an undertaking concerned in the preceding business year, the fine must be reduced to that percentage, pursuant to Article 23 of Regulation (EC) No 1/2003. That amount can still be reduced in accordance with the Leniency Notice, where applicable.

8.3.2. The Value of Sales

379. In determining the basic amount of the fine to be imposed, the Commission starts from the value of the undertaking's sales of the goods or services to which the infringement directly or indirectly relates in the relevant geographic area within the EEA³⁷⁴.

380. The sales of LCD panel directly or indirectly concerned by the infringement in the EEA (duly taking into account its enlargement in 2004) are:

- (i) Direct EEA Sales (that is LCD panels for IT or TV applications not smaller than 12" directly sold to another undertaking in the EEA by one of the addressees of this Decision);
- (ii) Direct EEA Sales Through Transformed Products (that is LCD panels not smaller than 12" incorporated intra-group into a final IT or TV product and subsequently sold to another undertaking in the EEA by one of the addressees of this Decision); and
- (iii) Indirect Sales (that is the value of the LCD panels sold by one of the addressees of this Decision to another undertaking outside the EEA, which would then incorporate the panels into final IT or TV products and sell them in the EEA).

381. However, as indicated in recital 9, for the purpose of establishing the value of sales in this case, the relevant EEA turnover consists of those sales where the first "real" sale of the LCD panel - as such or integrated in a final IT or TV product - was made into the EEA during the period of the infringement *by one of the addressees of this Decision*. This refers only to points (i) and (ii) of recital 380. Although the value of all indirect sales made into the EEA (point (iii) of recital 380) could have been included in the relevant value of sales, this is not done in this case as sufficient

³⁷⁴ Point 13 of the Guidelines on Fines.

deterrence is achieved by including into the value of sales only the first "real" sale of LCD panels into the EEA.

382. Though both Direct EEA Sales and Direct EEA Sales Through Transformed products lead to the inclusion of – respectively - sales to related companies and intra-group sales for some of the parties, focusing on the first EEA sale of the product concerned by the infringement - whether transformed or not - to a company that is not part of the supplier undertaking ensures that no discrimination is made between vertically integrated companies and non-vertically integrated companies.³⁷⁵
383. To identify the relevant value of sales the value of LCD panels delivered into the EEA should be taken into account. The delivery criterion is indeed the most adequate proxy in this case. As concerns Direct EEA Sales, the delivery criterion represents best the most characteristic action under a contract for the sale of goods, namely the actual delivery of the goods. This in turn constitutes a proxy for the location where competition with alternative suppliers takes place within the EEA. As concerns Direct EEA Sales Through Transformed Products, the consumer harm inflicted by the cartel arrangements is clearly represented by the value of panels delivered within the transformed products to the final consumer in the EEA. By using the criterion of delivery, a strong nexus with the EEA is established, thereby reflecting the economic importance of the infringement in the EEA.
384. The Commission normally takes into account the sales made by an undertaking during the last full business year of its participation in the infringement (point 13 of the Guidelines on fines). In this case, however, the actual relevant data can be established with relative ease for the entire duration of the infringement. Moreover, having regard to the exponential growth of the sales over the different years for all undertakings (except Hannstar, whose sales anyway fluctuated enormously), in deviation from normal practice and in line with claims submitted by some parties, it is appropriate to take the average annual value of sales (based on the actual sales over the entire duration of the infringement) as the basis for the 'value of sales' calculation. Those average sales are presented in Table 4.

Table 4: Calculation of average yearly turnover

	Total relevant turnover from October 2001 to January 2006 (EUR) A	Duration (years) B	Average yearly turnover (EUR) A/B
Samsung	[Between 2 and 3 billion]	4.33	[*]
LPL	[Between 2 and 3 billion]	4.33	[*]

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See Case T-304/94, *Europa Carton AG v Commission* [1998] ECR II-869, paragraphs 111-131; ; Case C-248/98 P, *Koninklijke KNP v Commission* [2000] ECR I-9641, paragraph 62; Case T-16/99, *Lögstör Rör v Commission* [2002] ECR II-1633, paragraphs 358-361.

AUO	[Less than 1 billion]	4.33	[*]
CMO	[Between 1 and 2 billion]	4.33	[*]
CPT	[Less than 50 million]	4.33	[*]
HannStar	[Less than 50 million]	4.33	[*]

385. Being a world-wide cartel, the relevant geographic area is the whole territory of the EEA. The territory of the EEA evolved during the infringement. Until 30 April 2004 it consisted of the territories of the then fifteen EU Member States together with Iceland, Lichtenstein and Norway, whilst from 1 May 2004 the territory comprised the 25 EU Member States together with Iceland, Liechtenstein and Norway. This was duly taken into account in the establishment of the relevant sales value.
386. LPL claims, first that "captive" sales, that is sales to companies connected to a given cartel participant should not be taken into account within the relevant value of sales, as in such cases the relationship is special and pricing does not follow market rules. Therefore, the cartel could have no effect on such sales. It also argues that in such cases no harm or gain can be present as both would be internal to the same undertaking. LPL further adds on this point that the exclusion of "captive" sales would be consistent with other Commission decisions and the Commission's decisional practice in merger cases. Second, it submits that specific products concerning which LPL was not in competition should also be excluded from the relevant value of sales. Third, LPL maintains that the Commission should take into account only those sales where the purchaser's headquarters are located in the EEA, thereby excluding sales to European subsidiaries of non-EEA groups, but including sales to non-European subsidiaries of EEA groups.³⁷⁶
387. AUO submits that panels of 10.4" and below were not affected by the cartel and should therefore not be taken into account in the value of sales. Similarly to LPL, it claims that its "captive" sales to its minority shareholder [*] should not be taken into account.³⁷⁷
388. CMO also argues that the value of sales should be calculated on a yearly basis and that there is no legal or factual basis to include the value of incorporated panels. It submits that sales made to other addressees of the SO should be excluded in a similar manner to "captive" sales. In relation to its argument on the lack of a single and continuous infringement (see recital 281) CMO submits that the value of sales should be calculated separately for IT and TV applications.³⁷⁸ It further submits that the Commission should choose a calculation method for the value of sales that ensures at least some nexus to Europe. This must, at a minimum, exclude panel shipments that were not even invoiced to European corporate entities and, thus

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ended up in Europe at the customer's instruction, rather than as a result of CMO's commercial decision. The Commission's method must also exclude panel shipments that exceptionally were billed to a European legal entity but never reached Europe.³⁷⁹ Finally, CMO argues that those sales in respect of which the transfer of title to the goods took place outside the EEA should not be taken into account³⁸⁰.

389. Hannstar argues in a similar way.³⁸¹ Moreover, it argues that indirect sales can not be taken into account in the value of sales as the example presented in the Guidelines on Fines does not cover the situation in this case.³⁸²
390. CPT argues that only direct sales to the EEA should be taken into account as it does not supply major European sellers and its panels are normally integrated into end-products sold outside the EEA. It claims that should indirect sales be taken into account, the effects of the cartel would not be proved, while it would definitely lead to double counting due to interference with proceedings brought by other competition authorities. CPT also emphasised that the value of direct sales already provides ample basis for a fine of appropriate deterrence.³⁸³
391. By letter dated 6 April 2010, the addressees of this Decision were informed of the parameters the Commission intended to use as a basis to calculate the value of the undertakings' sales.³⁸⁴
392. As stated at recital 383, only the value of sales of panels *delivered* to clients in the EEA are taken into account. Moreover, panels smaller than 12" for IT and TV application, on the one hand, and panels which were not sold for IT or TV application, on the other hand, are excluded from the relevant "Value of Sales". Such panels are not considered to be affected by the cartel discussions.

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 383 [*]

384 That is the "direct EEA sales" and "indirect EEA sales" as defined in the request for information of 4 March 2010 (where these data both with respect to delivery and billing in the EEA were requested). The concepts of "direct EEA sales" and "indirect EEA sales" in the letter correspond to the concepts of "Direct EEA Sales" and "Direct EEA Sales through Transformed Products" in this Decision. The letter also clarified that for the purposes of the determination of the fine, when calculating "direct EEA sales", all companies not covered in the definition given for "indirect EEA sales" would be considered as "independent third party". "Direct EEA sales" were defined as all sales of LCD panels for use in IT or TV applications made to independent third parties in the EEA by any of the legal entities directly or indirectly controlled by the ultimate mother company of the undertakings concerned. "Indirect EEA sales" were defined as those sales where the LCD panel for use in IT or TV applications was transferred intra-group (intra-group sale) for transformation in another product (such as a notebook or desktop monitor or TV) and the first sale to an independent third company by any of the legal entities directly or indirectly controlled by the ultimate mother company of the undertakings concerned in the form of a transformed product into the EEA. For the avoidance of doubt, it was clarified on 4 May 2010 that for the purposes of the determination of the fine, the sale to independent third parties was also meant to cover those sales made directly by the ultimate parent company/ies.

393. By focusing on the value of the Direct EEA Sales as well as the value of the cartelised products sold in the form of transformed products (such as notebooks, desktop monitors or TVs) on the market in the EEA by the addresses of this Decision (defined as "indirect EEA sales" in the request for information mentioned in footnote 384, but better described as Direct EEA Sales Through Transformed Products and defined as such in recital 379), the purpose is to consistently include in the 'value of sales' the cartelised products only when they are sold for the first time to a customer which is external to the cartelists' undertakings and is located in the EEA. The Commission does not take into account the value of the transformed product, but the value of the panel within it. As the first sale of the cartelised product is made to an independent customer in the EEA, a direct link with the EEA Territory is established.
394. Among the undertakings concerned, Samsung, CMO and Hannstar had Direct EEA Sales Through Transformed Products. The sales of LCD panels to intra-group customers were part of the cartel discussions in this case and are therefore included in the value of sales. In this respect, reference is made to the general rule agreed by all Taiwanese companies in a meeting prior to the start of the cartel that "*the upper limit for discount on intra-group sales is [*]*" (see recital 76). In addition, all six undertakings agreed on 15 November 2001 - as documented by the contemporaneous minute provided by CPT - "[with respect to] *internal clients and commitments that are exceptional case, try to gradually decrease these exceptional cases*" (recital 107). Furthermore, and more in general, as explained in recital 238 with reference to the *Cartonboard* case, it can be reasonably assumed that an implemented cartel had effects on direct sales through transformed products.
395. For the calculation of the value of sales, the value of the relevant panels is included in so far as the transformed product is sold by the cartel list in the EEA to an unrelated company. Therefore the value of such panels is taken into account only once, so that no eventual double counting can take place.
396. The arguments put forward by LPL and AUO against the inclusion of sales to companies connected to it, *in casu*, respectively, the Direct EEA Sales to its shareholders [*] on the one hand, and [*] on the other, cannot be accepted. The sales of LCD panels to those related customers were part of the cartel discussions in this case. In this respect, reference is made to the two general rules of the cartel set out in recitals 76 and 107, as summarised in recital 394. The concepts of "*intra group*" and "*internal clients*" also covered the sales to related companies. Indeed, sales to [*] were covered by the cartel discussions (see footnote 323). Moreover, the price set for those companies was influenced by the actual market circumstances, that is the cartelised price level. To the extent that sales to connected companies were delivered into the EEA, they should therefore be taken into account in a similar manner to other direct sales of cartel participants into the EEA.
397. For the establishment of the value of the sales to connected companies, account has been taken of the price actually charged for such panels as reported by the undertakings concerned. Indeed, the contemporaneous cartel documents referring to the prices charged to their related customers (see footnote 374) do not indicate that those prices were substantially different from those charged to other customers. In

any event, LPL and AUO have provided no evidence that those sales were made at a systematically higher or lower price than sales to other customers in the EEA.

398. CMO's claims relating to the exclusion of the value of sales made to other addressees of the Statement of Objections (intra-cartel sales) have to be rejected. Those sales were also discussed by the cartel participants. Notably during the cartel meeting in January 2006 (the penultimate Crystal meeting), the minutes refer to an interim price of AUO and CMO to Samsung (see recital 226). In addition, and more generally, the infringement had a global character (as concerns the product and geographic dimension), with the parties generally aiming at increasing and/or maintaining the prices for LCD panels for TV and IT application. That price level achieved by anti-competitive means constituted a general background and therefore necessarily influenced the price setting of sales of panels to other cartelists.
399. CMO's arguments on the existence of two separate infringements in this case have been rejected (see recital 288). Accordingly, its argument on the separate calculation of the value of sales of LCD panels for IT and TV panels respectively, must also be rejected.
400. The argument that a sufficient nexus can only be established if both billing and delivery are made into the EEA should also be rejected. Being participants in a world-wide cartel and aiming at increasing and maintaining prices in general, the suppliers' knowledge on the final shipment destination or centre of interest of the customer has no bearing on the geographical coverage of the anti-competitive objective. Similarly, its implementation necessarily produced immediate and foreseeable effects on the world-wide market, that is in the EEA as a whole, irrespectively of whether the parties had any knowledge of the actual place of delivery or billing of the specific panels. Moreover, the approach suggested by CMO and Hannstar would result in a situation in which sales for which the place of delivery and the place of billing is not the same, would end up not being taken into account in any competition proceedings, thereby allowing general impunity for the cartelists concerned. It follows from recital 379 that by taking the delivery criterion for the establishment of the value of sales a strong nexus to the EEA is assured.
401. Similarly, the argument of CMO and Hannstar on the place of the transfer of the title to the LCD panels cannot be accepted. The circumstance that for certain sales of panels delivered into the EEA, the commercial risks passed to the customers at the loading port in Asia (because, e.g., the panels were sold "Free on Board") has no bearing on the fact that those sales had an impact on competition in the EEA. "Delivery" (and not transfer of title to, nor billing of the goods) is the criterion on the basis of which the EEA sales are identified in this case (see recital 383).
402. LPL's argument that the value of panels for which LPL is not in competition with other suppliers (being sole or quasi-exclusive supplier) should not be taken into account has to be rejected. The infringement had a global character both from the geographic and product point of view, with the parties generally aiming at increasing and/or maintaining the prices for LCD panels for TV and IT application. That price level achieved by anti-competitive means constituted a general background and therefore necessarily influenced the the setting of prices for non-competing panels.

403. As to LPL's argument that the Commission should take into account only the sales in respect of which the purchaser's headquarters are located in the EEA (thereby excluding sales to European subsidiaries of non-EEA groups), including sales to non-European subsidiaries of EEA groups, it is sufficient to refer back to recital 393 in which it is explained that the approach applied by the Commission is consistent and reflects the effect on trade within the EEA appropriately.

8.3.3. *Determination of the basic amount of the fines*

8.3.3.1. *Gravity*

404. The gravity of the infringement determines the level of the value of sales taken into account in setting the fine. As a general rule, the proportion of the value of sales taken into account will be set at a level of up to 30%. In order to decide whether the proportion of the value of sales should be at the lower or at the higher end of the scale, the Commission will have regard to a number of factors, such as the nature of the infringement, the combined market share of all the undertakings concerned, the geographic scope of the infringement and whether or not the infringement has been implemented.

(a) Nature

405. The addressees of this Decision participated in a single and continuous infringement of Article 101 of the Treaty and Article 53 of the EEA Agreement. The infringement consisted of an agreement whereby they agreed on horizontal price-fixing, which is, by its very nature, among the most harmful restrictions of competition, as this practice distorts competition with regard to the main parameters of competition.

406. According to point 23 of the Guidelines on Fines, cartels will, as a matter of policy, be heavily fined. The economic importance of the sector is reflected by the basic amount of the fine which is based on the value of sales and does not require further adjustment.

(b) Combined market share

407. The combined market share of the addressees of this Decision was around [65-80]% during the period of the infringement. According to the parties' own estimations, at the time of the infringement the parties also considered their joint share to be around 70% (see recital 43).

(c) Geographic scope

408. As regards the geographic scope, the infringement covered the entire EEA. In fact, the geographic scope of the cartel was more than EEA wide, namely world-wide.

(d) Implementation

409. The arrangements were in general implemented and monitored at the monthly meetings. In instances of non-application, the parties were called upon to provide explanations.

(e) Arguments of the parties

410. LPL submits that there are circumstances showing that the gravity of the infringement was of a lower level. First, the cartel had no European-centric context as it was not directly implemented in the Union, and the Commission has not established in the SO that the cartel had foreseeable, immediate and substantial effects on trade between Member States and European customers were not the main focus at the meetings. Second, it states that the main purpose of the meetings was to gather information while at the same time trying to divulge as little information as possible. Therefore the purpose of the meeting was its impediment at the same time. Third, it claims that LPL did not systematically implement prices discussed at the meetings, as supported by an econometric study. Fourth, it explains that the Crystal meetings evolved over time to a scheme of exchange of information. Fifth, it claims that there was no mechanism to monitor or to ensure implementation of the agreement.³⁸⁵ Sixth, while explaining that for several reasons the characteristics of the LCD industry militate against the effective implementation of a collusion, it refers to the econometric study submitted by it,³⁸⁶ according to which the infringement had no effects on prices.
411. CMO claims that the gravity of the infringement is to be considered low in the light of the special circumstances of the case, that is that as the Commission did not demonstrate in the SO that the cartel had an impact on transaction prices, the discussions on the Crystal meetings cannot be characterised as price fixing. Rather, the Crystal meetings related to the exchange of historical and current price information mostly available in public data sets (Display Search) already, and that the parties combined share on the TV segment was not that high as the Japanese producers were not participating in the multilateral meetings.³⁸⁷
412. Hannstar claims that the geographic scope cannot be regarded as world-wide, that its market share in the EEA is marginal and its overall size and economic power is also not significant, that its involvement was only limited, that it has not derived any gains from the infringement, that it was absent from many meetings, that it did not implement the agreement and that the relative gravity of its participation was low.³⁸⁸
413. With respect to the arguments made relating to the nature of the cartel and its implementation, the change in the functioning of the cartel as of May 2005, its effect on trade between Member States, and the participation at the meetings, reference is made to Sections 5.3.1.3, 5.3.2.3, 5.3.3.3, 5.3.4.3 and recitals 83 and 270 respectively. An alleged marginal share in the EEA will be fully reflected in an equally low value of sales and should not be taken into account separately in the setting of the percentage of the basic amount of the fine to be imposed.
414. Regarding the probative value of the econometric study submitted by [*], the following should be pointed out. The econometric study uses regression analysis to investigate whether the prices charged for TFT LCD panels were higher during the

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period in which the cartel was allegedly in place. The study implements a standard regression analysis technique: it specifies a model in which the price of TFT LCD is the dependent variable while (i) a measure of average production costs, (ii) the industry supply/demand balance and (iii) a period dummy which takes the value of 1 during the cartel period are the explanatory variables. The study runs such regressions for various product groups and a number of different specifications. It concludes that "results [are] inconsistent with successful collusion in more than 97% of the company's sales". In particular, the study finds that, in the regressions based on the world-wide data set, the period dummy variable does not have a significant positive coefficient for 23 out of 28 groups of products. On the other hand, in the regressions based on the European data set, the period dummy variable does not have a significant positive coefficient for 20 out of 23 groups of products. According to the study, those results are robust to a number of sensitivity tests accounting for different model specifications. Assuming that only positive and significant coefficients for the period dummy variables are consistent with an effective cartel during the period of observation, the study thus should suggest that the cartel did not have any effect on prices on the vast majority of the groups of products.

415. The Commission has carefully analyzed the study. [*]. At the outset it should be noted that even if the infringement had no proven effects on prices as the study indicates, the Commission does not take into account when assessing the gravity of the infringement whether it was implemented or that the cartel had effects on prices. Nevertheless the Commission's analysis also leads to the conclusion that the results of the study are unconvincing for reasons relating to an endogeneity bias, an omitted variable bias, a selection bias because of a sensitivity to groupings, a wrong specification selection and a change in data underlying the methodology during the observation period as further detailed in Annex II. [*] arguments based on the study should therefore be rejected.

(f) Conclusion on gravity

416. Given the specific circumstances of this case, taking into account the criteria discussed above relating to the nature and geographic scope of the infringement, the proportion of the value of sales to be taken into account should be 16% for all the undertakings addressed.

8.3.3.2. Duration

417. The infringement started in October 2001 and lasted until 1 February 2006 amounting to more than four years.
418. Rather than rounding up periods as suggested in point 24 of the Guidelines on Fines, the Commission will take into account the actual duration of participation in the infringement of the undertakings involved in this case as summarised in Section 7 on a rounded down monthly and *pro rata* basis to take fully into account the duration of the participation for each undertaking. Hence, if, for instance, the duration is four years and three months and twenty-five days, the calculation will take into account

four years and three months without counting the number of days at all. This leads to the following multipliers:

Table 5: Multipliers relating to the duration of participation of each undertaking

Undertaking	Period of liability	Actual duration	Multiplier
Samsung	5 October 2001 – 1 February 2006	4 years, 3 months	4.25
LPL	5 October 2001 – 31 December 2005 ³⁸⁹	4 years, 2 months	4.16
AUO	5 October 2001 – 1 February 2006	4 years, 3 months	4.25
CMO	5 October 2001 – 1 February 2006	4 years, 3 months	4.25
CPT	5 October 2001 – 1 February 2006	4 years, 3 months	4.25
HannStar	5 October 2001 – 6 January 2006	4 years, 3 months	4.25

8.3.4. The percentage to be applied for the additional amount

419. In addition, irrespective of the duration of the undertakings' participation in the infringement, the Commission includes in the basic amount of the fine to be imposed a sum of between 15% and 25% of the value of sales in order to deter undertakings from entering into horizontal price-fixing and market-sharing agreements.³⁹⁰
420. LPL submits that it is not necessary in this case to increase the fine for deterrence purposes. It explains that there was no unlawful gain deriving from the infringement as [*] supply was mostly internal, [*] Its prices were not higher, as was shown by the econometric analysis it submitted, and it did not systematically implement the price discussions into price setting, but maintained independent pricing policy. It adds that the fine imposed in the United States, and other ongoing proceedings also provide for sufficient deterrence.³⁹¹
421. AUO claims that there is no need to increase the fine for deterrence purposes, especially if the value of sales taken for the calculation of the basic amount of the fine to be imposed is the turnover of financial year 2005, when Union sales were higher than in all previous years combined. It also adds that other antitrust proceedings and anticipated damage claims already ensure deterrence.³⁹²
422. HannStar claims that it is the smallest of the participating undertakings and that a very significant proportion of its world-wide turnover is attributable to LCD panels.³⁹³

³⁸⁹ In view of the partial immunity granted to LPL for 2006 (see recitals 464-468).

³⁹⁰ Point 25 of the Guidelines on Fines.

³⁹¹ [*]

³⁹² [*]

³⁹³ [*]

423. None of the above arguments justify a deviation from the explicit Commission policy as stated in recital 419 of imposing a so-called "entry fee" to deter undertakings from even entering into a horizontal price-fixing agreement. With respect to an alleged lack of gain resulting from the cartel, the Commission's policy choice with respect to that argument is reflected in point 31 of the Guidelines on Fines, which indicates that a fine may be increased to ensure deterrence if the gains of the cartel would exceed the fine imposed. An alleged lack of gain, in contrast, does not constitute an element to be taken into account when setting the percentage. Fines imposed by other jurisdictions reflect the harm done by the cartel in those jurisdictions. The argument concerning the lack of systematic implementation and the econometric analysis supporting it should not be taken into account either as it is clear from Section 8.4.3.2.

424. Given the specific circumstances of this case and taking into account the criteria discussed at Section 8.3.3.1 it is concluded that an additional amount of 16% of the average annual value of sales should be taken into account for all the undertakings concerned.

8.3.5. *Calculation and conclusion on basic amounts*

425. The basic amount of the fine to be imposed on the addressees of this Decision is to be calculated as follows:

Table 6: Basic amounts *per* undertaking

	Total basic amount	Addressees
1.	EUR 570 000 000	Samsung Electronics Co Ltd and Samsung Electronics Taiwan Co Ltd
2.	EUR 430 000 000	LG Display Co., Ltd. and LG Display Taiwan Co., Ltd.
3.	EUR 146 000 000	AU Optonics Corporation
4.	EUR 300 000 000	Chimei InnoLux Corporation
5.	EUR 9 500 000	Chunghwa Picture Tubes, Ltd.
6.	EUR 8 100 000	HannStar Display Corporation

8.4. **Adjustments to the basic amount**

8.4.1. *Aggravating circumstances*

426. The Commission does not consider that there are aggravating circumstances in this case.

8.4.2. *Mitigating circumstances*

427. Point 29 of the Guidelines provides for the reduction of the basic amount where the Commission finds the existence of mitigating circumstances, such as where the undertaking provides evidence that the infringement has been committed as a result of negligence, where the undertaking provides evidence that its involvement in the infringement is substantially limited and demonstrates that it actually avoided applying it by adopting competitive conduct, where the undertaking concerned has effectively cooperated with the Commission outside the scope of the Leniency

Notice and beyond its legal obligation to do so, or where the anti-competitive conduct of the undertaking has been authorized or encouraged by public authorities.

8.4.3. *Arguments of the parties*

428. LPL submits first, that the level of its cooperation went beyond the scope of the Leniency Notice by [*], exceeding the obligation placed on leniency applicants in other proceedings, by [*]. Second, it emphasises again that it did not systematically implement the agreement and on several occasions demonstrated aggressive competition on the market. Third, it claims that its participation in the infringement was more limited than that of other parties as it did not participate from the outset, did not collude on production limitation, hosted no meetings, attended via lower level employees and took measures to enforce compliance with competition law.³⁹⁴
429. AUO claims that if it has committed an infringement, it did so only unintentionally. Steps taken to maintain confidentiality cannot be taken as evidence to the contrary as those measures only served to avoid customers misunderstanding the nature of the meetings. Second, it submits that the Taiwanese government encouraged joint actions of Taiwanese suppliers to solidify and strengthen the industry. It encouraged joint investments in next generation panel production lines.³⁹⁵
430. CMO claims that it played only a passive role as the SO shows that it took no initiations or led discussions during the meetings. Second, it states that at best it was negligent in committing the infringement as the existence of Union jurisdiction was not obvious at all. Finally, it claims that it cooperated with the Commission outside the Leniency Notice because as the Commission did not have jurisdiction, CMO was by no means obliged to provide the evidence it finally submitted and which was referred to in the SO by the Commission. It also adds that as compared to other parties it was in a more disadvantageous situation when it was asked for information, as it first received a "catch-all" questionnaire not specifying any meetings, but requesting information concerning all contacts in a given period. It was therefore far more difficult to conduct a targeted internal investigation and make an informed decision about whether to apply for leniency. A precise list was only included with the decision requesting information so CMO clearly suffered a disadvantage *vis-à-vis* other parties.³⁹⁶
431. CPT submits that "it investigated in the infringement as soon as it received notice of the investigation and immediately took steps to prevent any future infringements". Second, it cooperated beyond its legal obligations [*], by answering requests for information promptly and by submitting [*]. Finally it claims that it played only a small role in the infringement.³⁹⁷

³⁹⁴ [*]

³⁹⁵ [*]

³⁹⁶ [*]

³⁹⁷ [*]

432. HannStar claims that it played an exclusively passive role, often did not attend meetings, ended participation earlier than others and adopted competitive market strategy throughout the duration of the infringement.³⁹⁸

8.4.3.1. *Negligence*

433. The Court of Justice and the General Court have consistently held that for an infringement to be regarded as having been committed intentionally it is not necessary for an undertaking to have been aware that it was infringing the competition rules in the Treaty. It is sufficient that it could not have been unaware that the contested conduct had as its object or effect the restriction of competition in the internal market, and affected or might affect trade between Member States.³⁹⁹ The Commission considers that the parties could not have had reasonable doubt about the fact that they were participating in a world-wide price fixing cartel and that their behaviour went against antitrust rules (see recitals 95 and 235). Even if certain parties were themselves not present on the EEA market with significant sales, they nevertheless all had direct sales to customers in the EEA and must have been aware that the scope of the infringement also covered the territory of the EEA. The Commission also considers that the infringement was committed intentionally and as it appears from the facts described at Section 4, the parties took precautions to conceal their arrangements and to avoid their detection (see recital 302). The cartel arrangements thereby permeated a significant part of the industry, were conceived, directed and encouraged at the highest levels in each undertaking concerned and operated entirely to the benefit of the participating producers and to the detriment of their customers and ultimately the general public.
434. Consequently, no mitigating circumstance can be retained on the ground of negligent or unintentional infringement for the benefit of AUO, CMO or any other of the undertakings concerned.

8.4.3.2. *Non-implementation*

435. The agreement covered the world-wide market, hence was directly implemented in the whole of the internal market and the EEA as well, providing for foreseeable, immediate and substantial effects, as required by the case law. The implementation on the market of the EEA does not depend on whether or not the infringement had a special focus on it, but on the fact that it was directly implemented within the EEA. It is clear that the agreement was effectively implemented, thereby affecting both direct purchasers and final consumers (see Section 5.2.3 and, concerning the econometric study, recital 415 and Annex II to the Decision).
436. Contrary to what is alleged by LPL, the evidence referred to at Section 4 shows that it was in fact applying the price agreement (see recital 88-89).
437. More in general, none of the addressees of this Decision have provided any indication that they had any desire, and undertook any action, to deliberately abstain

³⁹⁸

[*]

³⁹⁹

See Case 19/77, *Miller v Commission* [1978] ECR 131, paragraph 18, and Case C-279/87, *Tipp-Ex v Commission* [1990] ECR I-261.

from implementing the agreement they concluded during the period in which they adhered to it.

8.4.3.3. *Substantially limited role*

438. It follows from point 29 of the Guidelines on Fines that simple non-implementation or cheating by an undertaking does not constitute a mitigating circumstance. The evidence must show that its involvement was substantially limited and demonstrates that, during the period in which it was party to the offending agreements, it actually avoided implementing them by adopting competitive conduct on the market. At the very least, the undertaking must show that it clearly and substantially breached the obligations relating to the implementation of the cartel to the point of disrupting its very operation.⁴⁰⁰ The fact that an undertaking which has been proved to have participated in collusion on prices with its competitors did not behave on the market in the manner agreed with its competitors is not necessarily a matter which must be taken into account as a mitigating circumstance when determining the amount of the fine to be imposed, and an undertaking which despite colluding with its competitors follows a more or less independent policy on the market may simply be trying to exploit the cartel for its own benefit.⁴⁰¹ Claims on passive participation cannot be accepted in this case. As regards LPL's claim concerning its limited role, it can be established that although it did not host meetings itself, it actively participated at the meetings from the first meeting held on 5 October 2001 being rarely if ever absent. It was often represented by high level officials who were, anyway, regularly informed about the meetings. In the case of HannStar, it is clear from Section 4 that it did follow and advocated the adoption of agreed prices, (see recitals 105, 106, 138, 141, 151 and 166) and in other instances it was rather unable than unwilling to follow the agreed price (see recitals 104, 147 and 182) and that it advocated price rises higher than proposed by larger participants (see recitals 115 and 121). Those claims therefore should not be accepted.
439. Concerning CMO, CPT and HannStar's claim that they played a passive role, it should be noted that while the Guidelines on the method of setting fines imposed pursuant to Article 15 (2) of Regulation No 17 and Article 65 (5) of the ECSC Treaty of 1998⁴⁰² provided for a reduction of the fine where an undertaking had taken "an exclusively passive or 'follow-my-leader' role in the infringements", the Guidelines on Fines of 2006, which are applicable in this case, have removed that attenuating circumstance, based on the consideration that the mere fact that an undertaking takes a passive role should not be rewarded by a reduction in the applicable fine. Even if an undertaking only adopts a passive or 'follow-my-leader' approach, it still participates in the cartel. This means that, on the one hand, it derives its own commercial benefits from its participation in the cartel and, on the other hand, it encourages the other cartelists to participate and to implement the arrangements. Therefore, a passive or 'follow-my-leader' role does not constitute a

⁴⁰⁰ T-26/02, *Daiichi v Commission* [2006] ECR II-497, paragraph 113.

⁴⁰¹ Case T-308/94, *Cascades v Commission* [1998] ECR II-925, paragraph 230.

⁴⁰² OJ C 9, 14.1.1998, p. 3.

mitigating circumstance. The claims of CMO, CPT and HannStar should therefore be rejected.

8.4.3.4. *Effective cooperation outside the scope of the Leniency Notice*

440. According to the Guidelines on Fines, the Commission may reduce the basic amount of the fine for effective cooperation outside the scope of the Leniency Notice should that cooperation be beyond the legal obligation of the undertaking concerned. Simply complying with legal requirements to disclose information can not be regarded as such cooperation.⁴⁰³ Moreover such cooperation should be effective, meaning that it should provide added value to the investigation, providing facts and explanations that lead to a better understanding of the case,⁴⁰⁴ or admissions facilitating the work of the Commission.⁴⁰⁵ According to the practice of the Commission, in cases where the Leniency Notice may find application, co-operation by undertakings which are party to the proceeding should, as a matter of principle, be assessed within the framework of the Leniency Notice⁴⁰⁶ and reduction outside the Leniency Notice can be awarded only under exceptional circumstances.⁴⁰⁷
441. The Commission has carefully analysed LPL's position under the Leniency Notice and for the conclusions reached in that respect see recitals 460-463. As an additional step, the Commission has also analysed whether any reduction of fines is applicable under the terms of cooperation outside the scope of the Leniency Notice and established that no exceptional circumstances can be identified in as far as [*] is concerned. Although CPT and CMO have not formally applied for leniency, the extent of their co-operation is assessed under the Leniency Notice (see Sections 8.4.5.4 and 8.4.5.5). No exceptional circumstances can be identified that could lead to a reduction of the fines on the grounds of co-operation outside the Leniency Notice. The non-contestation of the facts by [*] does not constitute a mitigating circumstance. The reward for non-contestation of facts which was provided for in the 1996 Leniency Notice⁴⁰⁸ has subsequently been abandoned.

8.4.3.5. *Alleged discriminatory treatment*

442. CMO argues that it was first targeted with a request for information that did not specify meetings, but only referred to a specific period. As result, it found itself disadvantaged in comparison to the other addressees of this Decision when it came to target internal investigations and make an informed decision on an eventual leniency application.

⁴⁰³ Case T-213/00, *Commission v CMA CGM and others* [2003] ECR II-913, paragraph 303.

⁴⁰⁴ Judgment of 24 September 2009 in Joined Cases C-125/07 P, C-133/07 P, C-135/07 P and C-137/07 P, *Erste Group Bank AG and others v Commission* not yet reported, paragraphs 248-250

⁴⁰⁵ *Ibidem*, paragraphs 288, 289 and 290.

⁴⁰⁶ Commission Decision 2006/901/EC in Case COMP/C.38.281?B.2 – Raw tobacco Italy, recital 386 (OJ L353, 13.12.2006, p. 45).

⁴⁰⁷ Case COMP 39.129 Power Transformers C(2009) 7601 final, recitals 262-274; 2006/901/EC Commission Decision OJ 2006 L353/45, recital 386

⁴⁰⁸ OJ C 207, 18.7.1996, p. 4.

443. As indicated in recital 57, the first request for information to CMO of 7 December 2006 did not contain an exhaustive list of competitor contacts. However, CMO did receive two extensions of the deadline to reply to that questionnaire, based upon its own arguments that the collection and analysis of the documents required longer than was originally provided for. In its preliminary answer of 15 January 2007 it stated that it did not consider the Commission to have jurisdiction to request the submission of documents located outside the EEA, but that in the spirit of cooperation, CMO would endeavour to respond voluntarily to its best ability and that it might even file a formal application for leniency. Nevertheless, in its final answer to the questionnaire of 7 December 2006, namely on 5 February 2007, referring to the lack of Commission jurisdiction, CMO refused to submit any document. As also indicated in recital 57, on 15 February 2007 the Commission adopted a request for information by decision which contained 39 references to specific meetings. CMO replied to that Decision on 2 March 2007 providing information on 12 of these 39 meetings.
444. This shows that CMO had appropriate time to identify the possible target of the investigation of the Commission, to collect documentary evidence and to submit it to the Commission as promised. The lack of any substantive answer was therefore not due to the missing list of contacts, but the deliberate decision of CMO not to cooperate with the Commission. This is also upheld by the fact that, even after the formal decision requiring information in accordance with Article 18(3) of Regulation (EC) No 1/2003, and after receipt of a detailed list of competitor meetings, CMO submitted no leniency application. Moreover as the first leniency application after the sending out of the requests for information was only submitted on 5 March 2007 by AUO, that is three months after the beginning of the internal investigation of CMO, two weeks after the receipt of a detailed list of competitor contacts and three days after CMO had provided documentary evidence of 12 Crystal meetings with competitors, it can be established that CMO was sufficiently informed and had ample time to prepare and submit its own leniency submission, and to be the first company to do so after the request for information. CMO is therefore not entitled to any reduction of the fine to be imposed on the grounds of alleged discrimination.

8.4.3.6. *Encouragement by public authorities*

445. Concerning the influence of public authorities AUO does not show that the infringement described in Section 5 was in any way authorised or encouraged by the Taiwanese authorities.

8.4.3.7. *Compliance programs*

446. Whilst the Commission welcomes measures taken by undertakings to avoid the recurrence of cartel infringements and to report infringements to the competent authorities, such measures cannot change the reality that infringements occur and need to be sanctioned.⁴⁰⁹ Compliance programmes and disciplinary measures cannot

⁴⁰⁹ See Joined Cases T-236/01, T-239/01, T-244/01 to T-246/01, T-251/01 and T-242/01, *Tokai Carbon Co. Ltd and Others v Commission* [2004] ECR II-1181, paragraph 343.

exempt parent companies from liability or entitle undertakings to a reduction of the fine, the more so in this case as the infringement concerned is a manifest breach of Article 101(1) of the Treaty and Article 53(1) of the EEA Agreement. The claim of CPT and LPL concerning measures taken to impede future infringements should therefore be rejected.

8.4.3.8. *Limited participation*

447. It should be noted that [*] participated in the infringement from the beginning of infringing period. Its participation was as active as that of the other participants, and does not warrant any reduction of the fine just because the [*] were not themselves hosting meetings in [*]. It is also established that high level management of [*] was involved and participated in CEO meetings. As the nature of the agreement is, in line with the SO, qualified as a price fixing agreement (see recital 297), the alleged non-participation in an output limitation cannot be considered as a mitigating circumstance. Moreover and in any event, the Commission has established that the parties, including [*] colluded on production volumes (see for example recitals 102, 107, 120, 149, 154, 156, 171, 187, 192 and 222).
448. Based on the above, it must be concluded that there are no mitigating circumstances applicable in this case. In the absence of aggravating and mitigating circumstances, the basic amounts of the fines to be imposed on each undertaking should not be adjusted.

8.4.3.9. *Deterrence multiplier*

449. Point 30 of the Guidelines on fines provides that 'The Commission will pay particular attention to the need to ensure that fines have a sufficiently deterrent effect; to that end, it may increase the fine to be imposed on undertakings which have a particularly large turnover beyond the sales of goods or services to which the infringement relates'.
450. Taking into account that provision, a multiplier for deterrence should not be applied in respect of any of the undertakings except Samsung, for which the conditions of point 30 of the Guidelines on fines are met. The turnover of SEC exceeds EUR 76 000 million (see recital 8) and the average annual value of sales in the relevant products represent less than 1% of its total turnover. In view of this, a multiplier of 20% should be applied to the basic amount of the fine to be imposed on SEC and Samsung Taiwan for the purposes of deterrence.

8.4.4. *Application of the 10% of turnover limit*

451. Article 23(2) of Regulation (EC) No 1/2003 provides that the fine imposed on each undertaking is not to exceed 10% of its total turnover in the preceding business year.
452. The basic amounts set out in Section 8.3.5 (as increased by the deterrence multiplier) do not exceed 10% of total turnover for any of the undertakings concerned. Therefore the amounts need not be modified in the light of the undertakings' turnover.

8.4.5. *Application of the Leniency Notice*

453. According to point 8(a) of the 2002 Commission Notice, the Commission will grant an undertaking immunity from any fine which would otherwise have been imposed if the undertaking is the first to submit evidence which in the Commission's view may enable it to adopt a decision to carry out an investigation.

454. Under points 20 and 21 of the Leniency Notice undertakings that do not meet the conditions for immunity may be eligible to benefit from a reduction of the fine that would otherwise be imposed on them if they submit evidence of significant added value with respect to the evidence already in the possession of the Commission.

8.4.5.1. *Samsung*

455. On [*], Samsung submitted an application under the point 8 (a) of the Leniency Notice. On 23 November 2006, the Commission granted Samsung conditional immunity.

456. Samsung cooperated fully and on a continuous and expeditious basis throughout the procedure [*]. It remained at the disposal of the Commission to provide explanations and clarifications.

457. There are no indications that Samsung continued its involvement in the cartel after its first submission of evidence, in compliance with point 11 of the Leniency Notice.

458. No evidence shows that Samsung took any steps to coerce other undertakings to participate in the infringement.

459. Samsung should therefore be granted immunity from any fines that would otherwise have been imposed on it.

8.4.5.2. *LPL*

460. On [*] LPL submitted an immunity/leniency application [*]. On 23 November 2006, the Commission rejected LPL's request for immunity.

461. [*]. It continuously cooperated during the investigation and submitted contemporaneous evidence [*].[*].

462. There are no indications that LPL continued its involvement in the cartel after its first submission of evidence, in compliance with point 21 of the Leniency Notice.

463. LPL is therefore the first undertaking to satisfy point 21 of the Leniency Notice. Considering the significant value of its contribution to this case and in particular the quantity and quality of the evidence and explanations submitted and the early stage at which it provided that contribution, the fine that would otherwise have been imposed on LPL should be reduced by 50%.

464. According to the last paragraph of point 23 of the Leniency Notice, if an undertaking provides evidence "relating to facts previously unknown to the Commission" with a

direct bearing on the duration of the suspected cartel, the Commission will not take those elements into account when setting the fine to be imposed on the undertaking which provided that evidence ("partial immunity").

465. On [*] LPL submitted a supplementary response to the SO in which it claimed "partial immunity" for its participation in the cartel in [*] 2006. [*].

466. [*]

467. The claim of LPL should be partly admitted. As is clear from point 22 and 23 of the Leniency Notice, for the last paragraph of point 23 to be applicable, the evidence submitted has to be sufficient in itself to establish the existence of certain facts that were previously unknown to the Commission and that have a direct bearing on the duration of the suspected cartel.⁴¹⁰ [*], can only be regarded as fulfilling the threshold of the last paragraph of point 23 of the Leniency Notice with respect to the beginning of 2006.

468. Taking this into account, LPL should be treated as if it had only participated in the cartel from 5 October 2001 to 31 December 2005 for the purpose of determining the fine to be imposed on it.

8.4.5.3. AUO

469. On [*], some 3 months after having received a first request for information in these proceedings, AUO filed a leniency application [*]. Its corporate statement also contains [*]. Moreover, the evidence and the explanations provided by AUO reinforce [*] evidence regarding the duration of the infringement. That evidence strengthens the Commission's ability to prove the facts for the period from 2001 to 2006.

470. On the other hand, AUO did not show a spirit of cooperation allowing the Commission to establish the infringement with less difficulty and its cooperation was not genuine in the sense that it did not cooperate sincerely, in good faith, by providing accurate and complete information that was not misleading.⁴¹¹ Through misinterpretation it tries to unduly minimise the content and meaning of the available evidence by insisting that the information exchanged during the meetings was unsuitable for any infringement of the kind alleged by the Commission (see recital 259 and Section 5.3.1.3), that there was no intention to reach an agreement, referring to the alleged discrepancy between the English words used by non native speakers and their actual intentions (see recital 294 and 309), and that the only conclusion which can be drawn from the evidence is that the market was highly competitive and that that effective competition is incompatible with the finding of an agreement to fix prices or limit production (see recitals 91-92, 259 and 294 and Section 5.3.3.3). The Commission therefore considers that AUO is therefore entitled to a reduction of 20%

⁴¹⁰ See also recital 208 of Commission Decision of 23 January 2008 in Case COMP 38.628 *Nitrile Butadiene Rubber*, OJ C 86, 15.4.2009, p. 7.

⁴¹¹ See for instance Case C-301/04 P, *Commission v SGL Carbon AG a.o.* [2006] ECR I-5915, paragraph 66-80; and Joined Cases C-189/02 P, C-202/02 P and C-213/02 P, *Dansk Rorindustri A/S a.o. v Commission* [2005] ECR I-5425, paragraphs 395 and 399.

of the fine that would otherwise have been imposed on it, within the available range of 20-30% of the fine imposed on it.

8.4.5.4. *CPT*

471. According to settled practice, undertakings which do not formally apply for reduction of the fine under the Leniency Notice may still be eligible for a reduction if, by the time a final decision is taken, it appears that they voluntarily supplied the Commission with evidence which represents significant added value as referred to in point 21 of the 2002 Leniency Notice. Though not formally applying for leniency, CPT voluntarily provided self-incriminating evidence in reply to requests for information, which to a certain extent went beyond the scope of the questionnaire. [*]. Some of those details were provided on the basis of information from CPT's staff and went beyond the information that is obvious from the contemporaneous documents submitted. [*]. Having regard to the added value of those pieces of evidence, CPT should be granted a reduction of 5% of the fine that would otherwise have been imposed on it.

8.4.5.5. *CMO*

472. In reply to requests for information, CMO has also submitted [*]. The Commission already had contemporaneous evidence [*]. Whilst the submission constitutes added value, it is not considered to be of a significant nature. Moreover, the Commission also takes into account that CMO did not continue to cooperate with the Commission in the spirit of the Notice after the date of its submission and did not come forward with further evidence, either on its own initiative or in reply to requests for information. It also did not provide explanations or translations of the documents submitted. Furthermore, the documents were submitted in reply to the request for information sent to CMO Taiwan pursuant to Article 18(2) of Regulation (EC) No 1/2003 and to the European subsidiaries pursuant to Article 18(3) of Regulation (EC) No 1/2003. This is an additional element that puts into question the voluntary nature of CMO's co-operation. In the light of the foregoing, no reduction should be granted to CMO.

8.4.5.6. *Conclusion on the Application of the Leniency Notice*

473. The fines to be imposed on the addressees of this Decision following the application of the Leniency Notice should be as follows:

Table 7: Final amount of the fines *per* undertaking (before inability to pay claims)

	Reduction	Fine	Addressees
1.	100%	EUR 0	Samsung Electronics Co Ltd and Samsung Electronics Taiwan Co Ltd
2.	50%	EUR 215 000 000	LG Display Co., Ltd. and LG Display Taiwan Co., Ltd.
3.	20%	EUR 116 800 000	AU Optonics Corporation
4.	0%	EUR 300 000 000	Chimei InnoLux Corporation
5.	5%	EUR 9 025 000	Chunghwa Picture Tubes, Ltd.
6.	0%	EUR 8 100 000	HannStar Display Corporation

8.4.6. *Inability to pay*

474. According to point 35 of the Guidelines on fines, '*...the Commission may, upon request, take account of the undertaking's inability to pay in a specific social and economic context. It will not base any reduction granted for this reason in the fine on the mere finding of an adverse or loss-making financial situation. A reduction could be granted solely on the basis of objective evidence that the imposition of the fine as provided for in the Decision would irretrievably jeopardise the economic viability of the undertaking concerned and cause its assets to lose all their value.*'
475. In exercising its discretion under point 35 of the Guidelines on fines, the Commission carries out an overall assessment of the undertaking's financial situation, with the primary focus on the undertaking's capacity to pay the fine in a specific social and economic context.
476. Two of the parties have invoked their 'inability to pay' ("ITP") under point 35 of the Guidelines on fines: [*] and [*]. The Commission has considered those claims and carefully analysed the available financial data on those undertakings. Requests for information have been addressed to both undertakings, asking them to submit details about their individual financial situation and their specific social and economic context.
477. Insofar as the undertakings argue that the expected fine would have a negative impact on their financial situation, without adducing credible evidence demonstrating their inability to pay the expected fine, there is settled case law according to which the Commission is not required, when determining the amount of the fine to be imposed, to take into account the poor financial situation of an undertaking, since recognition of such an obligation would be tantamount to giving unjustified competitive advantages to undertakings least well adapted to the conditions of the market.⁴¹²
478. The assessment of the financial situation of the two undertakings should be based on their respective financial situation at the time the Decision is adopted and on the basis of the financial data and information submitted by the undertakings.
479. In assessing the undertakings' financial situation, the Commission considers the financial statements (annual reports, consisting of a balance sheet, an income statement, a statement of changes in equity, a cash-flow statement and notes) of the last (usually five) financial years, as well as their projections for 2010-2012. The Commission takes into account and relies upon a number of financial ratios measuring the solidity (in this case, the proportion which the expected fine would represent of the undertakings' equity and assets), their profitability, solvency and liquidity, all of which are commonly used when evaluating risks of bankruptcy. In addition, the Commission takes into account relations with outside financial partners

⁴¹² See Joined Cases 96/82 to 102/82, 104/82, 105/82, 108/82 and 110/82, *IAZ International Belgium and Others v Commission* [1983] ECR 3369, paragraphs 54 and 55, and Joined Cases C-189/02 P, C-202/02 P, C-205/02 P to C-208/02 P and C-213/02 P, *Dansk Rørindustri and Others v Commission* [2005] ECR I-5425, paragraph 327 and Case C-308/04 P, *SGL Carbon AG v Commission* [2006] ECR I-5977, paragraph 105.

such as banks, on the basis of copies of contracts concluded with those partners in order to assess the undertakings' access to finance and, in particular, the scope of any undrawn credit facilities they may have. The Commission also includes in its analysis the relations with shareholders in order to assess their confidence in the undertakings' economic viability (shareholder relations may be illustrated by recent dividend payments and other outflows of cash paid to the shareholders), as well as the ability of those shareholders to assist the undertakings concerned financially. Attention is paid both to the equity and profitability of the undertakings and, above all, to their solvency, liquidity and cash flow. The analysis is, in other words, both prospective and retrospective but with a focus on the present and immediate future of the undertaking. The analysis is not purely static but rather dynamic, whilst taking into account consistency over time of the submitted projections. The analysis takes into account possible restructuring plans and their state of implementation.

8.4.6.1. [*] [...]

480. [CONFIDENTIAL] The ITP claim of [*] should therefore be rejected.

8.4.6.2. [*] [...]

481. [CONFIDENTIAL] The ITP claim of [*] should therefore also be rejected.

8.5. Conclusion: final amount of individual fines

482. The fines to be imposed pursuant to Article 23(2) of Regulation (EC) No 1/2003 should therefore be as follows:

Table 8: Final amount of the fines *per* undertaking (after inability to pay claims)

	Fine	Addressees
1.	EUR 0	Samsung Electronics Co Ltd and Samsung Electronics Taiwan Co Ltd
2.	EUR 215 000 000	LG Display Co., Ltd. and LG Display Taiwan Co., Ltd.
3.	EUR 116 800 000	AU Optonics Corporation
4.	EUR 300 000 000	Chimei InnoLux Corporation
5.	EUR 9 025 000	Chunghwa Picture Tubes, Ltd.
6.	EUR 8 100 000	HannStar Display Corporation

HAS ADOPTED THIS DECISION:

Article 1

The following undertakings infringed Article 101 of the Treaty and Article 53 of the EEA Agreement by participating, during the periods indicated, in a single and continuous agreement and concerted practice in the sector of Liquid Crystal Display panels for TV, notebook and monitor application:

- (1) Samsung Electronics Co Ltd and Samsung Electronics Taiwan Co Ltd, from 5 October 2001 until 1 February 2006,
- (2) LG Display Co., Ltd. and LG Display Taiwan Co., Ltd., from 5 October 2001 until 1 February 2006,
- (3) AU Optronics Corporation, from 5 October 2001 until 1 February 2006,
- (4) Chimei InnoLux Corporation, from 5 October 2001 until 1 February 2006,
- (5) Chunghwa Picture Tubes, Ltd., from 5 October 2001 until 1 February 2006,
- (6) HannStar Display Corporation, from 5 October 2001 until 6 January 2006,

Article 2

For the infringement referred to in Article 1, the following fines are imposed:

EUR 0	Jointly and severally on Samsung Electronics Co Ltd and Samsung Electronics Taiwan Co Ltd
EUR 215 000 000	Jointly and severally on LG Display Co., Ltd. and LG Display Taiwan Co., Ltd.
EUR 116 800 000	on AU Optronics Corporation
EUR 300 000 000	on Chimei InnoLux Corporation
EUR 9 025 000	on Chunghwa Picture Tubes, Ltd.
EUR 8 100 000	on HannStar Display Corporation

The fines shall be paid in euro, within three months of the date of notification of this Decision, to the following account held in the name of the European Commission:

BANQUE ET CAISSE D'EPARGNE DE L'ETAT
1-2, Place de Metz
L-1930 Luxembourg

IBAN: LU02 0019 3155 9887 1000
BIC: BCEELULL

Ref.: European Commission – BUFI / COMP/39309

After the expiry of that period, interest shall automatically be payable at the interest rate applied by the European Central Bank to its main refinancing operations on the first day of the month in which this Decision is adopted, plus 3.5 percentage points.

Where an undertaking referred to in Article 1 lodges an appeal, that undertaking shall cover the fine by the due date by either providing an acceptable bank guarantee or making a provisional payment of the fine in accordance with Article 85a(1) of Commission Regulation (EC, Euratom) No 2342/2002.⁴¹³

Article 3

The undertakings listed in Article 1 shall immediately bring to an end the infringement referred to in that Article, insofar as they have not already done so.

They shall refrain from repeating any act or conduct described in that Article, and from any act or conduct having the same or similar object or effect.

Article 4

This Decision is addressed to:

- | | |
|---|--|
| <ul style="list-style-type: none"> • Samsung Electronics Co Ltd | <ul style="list-style-type: none"> • 38th Fl. Samsung Electronics Bldg.
1320-10, Seocho 2-dong, Seocho-gu
Seoul
Korea 137-857 |
| <ul style="list-style-type: none"> • Samsung Electronics Taiwan Co Ltd | <ul style="list-style-type: none"> • 10F, No.399 Rui Guang Road
Nei Hu Dist
Taipei
Taiwan, Republic of China |
| <ul style="list-style-type: none"> • LG Display Co., Ltd. | <ul style="list-style-type: none"> • 13th Fl., LG U+building
65-228, Hangangro, 3-ga, Yongsan-gu
Seoul, 140-716, Korea |
| <ul style="list-style-type: none"> • LG Display Taiwan Co., Ltd. | <ul style="list-style-type: none"> • 9F, No. 89, Sec. 2
Tiding Blvd.
Neihu District
Taipei City 114
Taiwan, Republic of China |

⁴¹³ OJ L 357, 31.12.2002, p. 1.

<ul style="list-style-type: none"> • AU Optronics Corporation 	<ul style="list-style-type: none"> • No. 1, Li-Hsin Road. 2, Hsinchu Science Park Hsinchu, Taiwan Republic of China
<ul style="list-style-type: none"> • Chimei InnoLux Corporation 	<ul style="list-style-type: none"> • No. 160, Kesyue Road Jhunan Science Park Miaoli County 35053 Taiwan, Republic of China
<ul style="list-style-type: none"> • Chunghwa Picture Tubes, Ltd. 	<ul style="list-style-type: none"> • 1127, Heping Road Bade City Taoyuan, Taiwan Republic of China
<ul style="list-style-type: none"> • HannStar Display Corporation 	<ul style="list-style-type: none"> • 4F, No. 48, Wucyuan Road Wugu Industrial Zone Taipei County 248 Taiwan, Republic of China

This Decision shall be enforceable pursuant to Article 299 of the Treaty and Article 110 of the EEA Agreement.

Done at Brussels, 8.12.2010

For the Commission

Joaquín ALMUNIA
Vice-President

[*]

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